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1 New Brunswick Board of Commissioners of Public Utilities
 2
 3 In the Matter of an application by the NBP Distribution &

4 Customer Service Corporation (DISCO) for changes to its
5 Charges, Rates and Tolls - Revenue Requirement

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    Delta Hotel, Saint John, N.B.
 7
   March 13th 2006
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1 New Brunswick Board of Commissioners of Public Utilities 2 3 In the Matter of an application by the NBP Distribution & 4 Customer Service Corporation (DISCO) for changes to its 5 Charges, Rates and Tolls - Revenue Requirement 6 7 Delta Hotel, Saint John, N.B. March 13th 2006 8 9 10 11 12 13 CHAIRMAN: David C. Nicholson, Q.C. 14 15 16 COMMISSIONERS: Jacques A. Dumont 17 Patricia LeBlanc-Bird 18 H. Brian Tingley 19 Diana Ferguson Sonier 20 Ken F. Sollows Randy Bell 21 22 David S. Nelson 23 24 BOARD COUNSEL: Peter MacNutt, Q.C. 25 26 BOARD STAFF: Doug Goss John Lawton 27 28 29 30 BOARD SECRETARY: Lorraine Légère 31 32 33 CHAIRMAN: Good morning, ladies and gentlemen. Mr. Gorman, 34 let me put it on the record that I appreciate that you forced us to take last week off. 35 36 MR. GORMAN: Well let me put on the record that all the 37 participants appreciate having last week off. 38 Now any preliminary matters? CHAIRMAN: 39 MR. MORRISON: No, Mr. Chairman.

1 - 5345 -2 CHAIRMAN: What about all those undertakings that I read 3 about in the press? MR. MORRISON: They will be marked probably tomorrow. 4 There is a couple of undertaking responses that were given --5 sent out last week electronically. A couple of them are 6 7 not complete and rather than mark them and revise them, we thought we would -- we are having a meeting after the 8 9 session this afternoon to finalize them so I assume it would be easier if we just had them all marked tomorrow. 10 CHAIRMAN: Okay, Mr. Morrison. 11 12 MR. MORRISON: And we have some others as well that are 13 ready or will be ready this afternoon. 14 CHAIRMAN: Any other party have any matters they want to bring up now? Mr. MacDougall? 15 16 MR. MACDOUGALL: Yes, Mr. Chair, I can accommodate with a 17 whole bunch of undertaking responses so we can get those 18 done today. The are undertaking responses from Dr. Rosenberg on behalf of EGNB. I have given them to Ms. 19 Légère and if we can go through, she can hand them out and 20 21 we can have them each marked one at a time, Mr. Chair. The first one, Mr. Chair, will be undertaking response 22 requested by Mr. Hyslop and the transcript reference is 23 page 5087. 24

25 MR. MACNUTT: Mr. Chairman, perhaps while these are being

1 - 5346 -2 handed out, we can do appearances? CHAIRMAN: Well Mr. MacNutt, I am going to do that and I was 3 just waiting for Mr. MacDougall to finish his first thing 4 and say that as soon as we get these in I will do just 5 Thank you for reminding me, Mr. MacNutt. 6 that. This will be EGNB-6. 7 MR. MACDOUGALL: Mr. Chair, the next one will be an 8 9 undertaking again requested by Mr. Hyslop and the 10 transcript reference is page 5088. 11 CHAIRMAN: That is EGNB-7. 12 MR. MACDOUGALL: The next one, Mr. Chair, was requested by 13 Mr. Morrison and it is at transcript reference 5106. 14 Mr. Chair, maybe because I am alone today it would be better rather than take the time, I will have them all 15 16 marked and I will put all the copies at the back of the 17 room. Mr. Hyslop is going to distribute them for me. Thank you 18 19 very much, Mr. Hyslop. CHAIRMAN: Would you repeat that, Mr. MacDougall? 20 21 MR. MACDOUGALL: Sure. I just indicated that Mr. Hyslop is 22 just going to hand those around. The last one, which was

23 EGNB-8, was requested by Mr. Morrison, transcript

24 reference 5106.

25 CHAIRMAN: Okay. And what is Mr. Hyslop passing?

1 - 5347 -

24

2 MR. MACDOUGALL: He is just helping assisting me in distributing them, to move the process along, Mr. Chair. 3 CHAIRMAN: Maybe you can help Mr. Lawson take his boxes back 4 out tonight, if you would? 5 MR. MACDOUGALL: I had actually offered that earlier. He 6 said he could handle them himself. Although he was under 7 some strain, we could all tell. 8 9 Thank you, Mr. Chair. The next undertaking response was requested by Mr. MacNutt and the transcript reference is 10 11 5121. 12 CHAIRMAN: That is EGNB-9. 13 MR. MACDOUGALL: Mr. Chair, the next one is a request by Mr. 14 MacNutt, transcript reference 5122. 15 CHAIRMAN: That's EGNB-10. MR. MACDOUGALL: The next one, Mr. Chair, was also requested 16 17 by Mr. MacNutt, transcript reference 5124. 18 CHAIRMAN: EGNB-11. MR. MACDOUGALL: The next one, Mr. Chair, was requested by 19 Commissioner Sollows, and it is transcript reference page 20 21 5135. 22 CHAIRMAN: EGNB-12. MR. MACDOUGALL: And Mr. Chair, with respect to that one, I 23

would just like to note, it wasn't officially listed at

the front of the transcript in the list of the

1 - 5348 undertakings but in fact was a question posed by Commissioner 2 Sollows that was in the transcript so we did respond to 3 4 it. But somehow it didn't make the front page of the undertakings. 5 6 CHAIRMAN: Good. Thank you. The next one, Mr. Chair, is a further 7 MR. MACDOUGALL: request by Commissioner Sollows, found at transcript 8 9 reference page 5147. 10 CHAIRMAN: That is <u>EGNB-13</u>. MR. MACDOUGALL: And just one final response, Mr. Chair. 11 12 This was requested by yourself at transcript reference 13 page 5152. 14 CHAIRMAN: EGNB-14. MR. MACDOUGALL: Mr. Chair, just for the record I wanted to 15 16 indicate those were all responses by Dr. Rosenberg with 17 the exception of the one transcript reference page 5122 in 18 which I responded as Enbridge's counsel. That was a 19 request by Mr. MacNutt for me to provide some information, but that is indicated that I was the responsible 20 individual for that. 21 That is all of the undertaking responses, Mr. Chair, and 22 23 our understanding is that is all of the outstanding undertakings for Dr. Rosenberg. And I would like once

25 again to thank Mr. Hyslop for his assistance.

1	- 5349 -
2	CHAIRMAN: Thank you, Mr. MacDougall. Now as Mr. MacNutt
3	pointed out, it's time to do appearances. And for the
4	Applicant today?
5	MR. MORRISON: Good morning, Mr. Chairman. Terry Morrison
6	for the Applicant. And with me at the counsel table is
7	Kathleen McShane, Sharon MacFarlane, Rock Marois, and also
8	Lori Clark is here.
9	CHAIRMAN: Thanks, Mr. Morrison. Canadian Manufacturers?
10	MR. LAWSON: Good morning, Mr. Chairman, Commissioners.
11	Gary Lawson. I expect to be joined later today by David
12	Plante.
13	CHAIRMAN: Thanks, Mr. Lawson. Conservation Council is not
14	here. Enbridge Gas New Brunswick?
15	MR. MACDOUGALL: David MacDougall for Enbridge Gas New
16	Brunswick.
17	CHAIRMAN: Thanks, Mr. MacDougall. The Irving Group?
18	MR. BOOKER: Good morning, Mr. Chair and Commissioners.
19	Andrew Booker for JDI.
20	CHAIRMAN: Good morning, Mr. Booker. And Jolly Farmer is
21	not here. Mr. Gillis is not here. Rogers is not here.
22	Self-represented are not here. And the Municipal
23	Utilities.
24	MR. GORMAN: Good morning, Mr. Chairman and Commissioners.
25	Raymond Gorman appearing for the Municipal Utilities.

1 - 5350 -2 Today I have Eric Marr and Dana Young with me. 3 CHAIRMAN: Thanks, Mr. Gorman. Vibrant Communities? And 4 the Public Intervenor. MR. HYSLOP: Good morning, Mr. Chair. Peter Hyslop 5 appearing with Mr. O'Rourke, Ms. Power, and today we have 6 our witness, Dr. Jeff Makholm. 7 Thanks, Mr. Hyslop. And Mr. MacNutt, last but 8 CHAIRMAN: 9 not least. Who do you have with you today? 10 MR. MACNUTT: Thank you, Mr. Chairman. I have with me this morning Doug Goss, senior advisor, John Lawton, advisor, 11 12 John Murphy, Andrew Logan and Jim Easson, consultants. 13 CHAIRMAN: Thanks, Mr. MacNutt. Mr. MacNutt has been 14 dazzling me since I first saw him this morning. He came 15 in and told me the order or witnesses and finally ended up 16 saying what month are we talking about here, because it's 17 like a Jack-in-the-Box, up and down, up and down, up and down. 18 Mr. Hyslop, you are sitting in the operative chair, so I 19 20 presume you are going next. MR. HYSLOP: That's correct. I think all counsel and Board 21 counsel schedule is that we will hear from Dr. Makholm 22 23 this morning. 24 CHAIRMAN: Okay. Call him to the stand then. My Panel is 25 not being offensive by turning their backs. They are

1 - 5351 -2 actually looking for something. MR. HYSLOP: I believe Dr. Makholm's evidence was at PI-14.. 3 MR. MACNUTT: The rebuttal testimony of Dr. Makholm is 4 exhibit PI-15, according to my records. 5 MR. HYSLOP: I will not be referring to specific sections of 6 it, I will try to hit the high points, if the Board 7 members just want to listen along, but if they wish to 8 9 have it I will certainly wait for them. I think we are 10 ready. DR. JEFF MAKHOLM, sworn: 11 DIRECT EXAMINATION BY MR. HYSLOP: 12 Q.1 - Dr. Makholm, would you please state your name for the 13 record, please? 14 My name is Jeff D. Makholm, M-a-k-h-o-l-m. 15 Α. Q.2 - Right. And where are you from, Dr. Makholm? 16 17 Α. I am senior Vice-president of National Economic Research Associates. My office is in Boston, Massachusetts. 18 MR. HYSLOP: And I think by agreement of counsel, and I 19 would note that it's part of Exhibit PI-15, Dr. Makholm's 20 21 résumé is attached and we would move that Dr. Makholm be accepted as an expert witness before this Board in the 22 area of utility regulation, financing and return on -- and 23 24 rate of return.

1 - 5352 - Dr. Makholm - Direct by Mr. Hyslop -

2 CHAIRMAN: Any objections?

3 MR. MORRISON: No, Mr. Chair.

4 CHAIRMAN: All right. The Board will so recognize the 5 witness.

Q.3 - Dr. Makholm, I would refer you to Exhibit PI-15 which is 6 7 the rebuttal testimony which was filed with the Board on or about January 29th. Do you have any changes or 8 9 clarifications you wish to make to your evidence? 10 Α. Yes. Two. The first on page 4, line 11. There is a phrase there that says, allowing a fair rate of return of 11 12 no less -- that was too loosely put. That should say, 13 allowing a fair rate of return no more and no more less -so if you could just insert the words no more and before 14 15 the term no less, then that conveys my meaning. And in that same vein on the next page, page 5, the same 16 17 type of change. Line 8. On line 8, page 5, there are the 18 words, no less than. If you see that perhaps here it 19 conveys my meaning more accurately just to strike those three words. Just strike them on line 8. That's it. 20 Q.4 - Okay. Now was this exhibit prepared by you or under 21 22 your supervision, Dr. Makholm?

23 A. Yes.

Q.5 - And except for the two changes that you have just noted,do you accept that testimony for your testimony of record

1 - 5353 - Dr. Makholm - Direct by Mr. Hyslop at today's hearings? 2 3 Α. Yes. Q.6 - Thank you very much. Now you were asked to address some 4 issues in your testimony. Would you briefly outline what 5 6 those issues were to the Board, please? 7 I'm here to present evidence on the fair rate of Α. Yes. return to award New Brunswick Power Distribution and 8 9 Public Service Corp, or Disco. 10 My conclusion proceeds from two basic points, one a simple fact about which there is no dispute, and the other a 11 fundamental principle of utility regulation. 12 13 The fact is that Disco is a Crown corporation, a political subdivision of the Province of New Brunswick. 14 The

15 fundamental principle is that in the provision of services 16 by a utility monopoly, both the public and the utility's 17 owners are fairly treated if the level of rates reflect 18 actual costs.

Now about the fact of the Crown corporation. For those who deal with utilities, either economists, market analysts or lenders, publicly owned and privately owned, that is, investor owned utilities, are two completely different animals. And the reason for that difference is precisely where the capital comes from and what it costs to obtain.

- 5354 - Dr. Makholm - Direct by Mr. Hyslop -Investor owned utilities get it from the market for equity and must charge rates that pay at least the opportunity cost of those investors in the market if they are to have access to it.

Publicly owned or state owned utilities get it in the 6 market for loans to the state, or political subdivision of 7 the state. There is no equity as such. Nobody sells 8 9 shares in the state, at least not on this continent. 10 There is no -- and it is merely debt backed by a belief that the state will stand by its commitments. Thus it is 11 12 the traditional and time tested procedure, when assessing 13 the cost of capital for state owned utilities, to look at the borrowing costs of the state. And that's never a very 14 15 difficult number to find because it's a public number. Now about that fundamental principle of basing the level 16 17 of utility rates on cost. In mature regulatory 18 jurisdictions this is the universal standard. Why? 19 Because it is a standard that serves the twin goals of 20 fairness and reasonableness to utility customers at the 21 same time providing for credit sustaining revenues for the 22 utility's owners. This principle of reasonable utility rates is so time tested as to be beyond dispute for all 23 practical purposes. 24

25 Given these two points, the resolution of this case

1 - 5355 - Dr. Makholm - Direct by Mr. Hyslop -2 should be comparatively straightforward. We want to 3 compensate Disco for its legitimate financing costs. These financing costs are objectively stated and easy to 4 examine in its annual reports. Disco as a factual matter 5 is 100 percent debt financed for the purposes of my 6 testimony in this case, and Disco's embedded cost of debt 7 from its annual report is 6.71 percent. 8 9 And that, Mr. Hyslop, is the crux of my evidence to the 10 Board. Q.7 - Now in preparation for today you have read the evidence 11 of Kathleen McShane and Ms. MacFarlane as provided in 12 13 their testimony and cross examinations, and I believe you 14 also had the opportunity to read Ms. McShane's evidence which is found in Exhibit A-55 under tab 1. And I would 15 like you to comment, if you would, on the nature of Ms. 16 17 McShane's evidence and I would like perhaps to phrase the 18 question. Why doesn't a deemed capital structure, an implied rate of return on equity, work in economic theory? 19 It does not work for the reasons I stated in the premise 20 Α. 21 of my evidence here. If the deemed capital structure and 22 the deemed cost of equity applied to the equity component

23 of that capital structure, do not reflect the costs of the

enterprise, then the outcome of those calculations in

25 terms of rates for consumers will be

1 - 5356 - Dr. Makholm - Direct by Mr. Hyslop -2 higher. And it does not serve the twin goals of just and 3 reasonable rates on the one hand and credit sustaining revenue for the enterprise on the other. 4 Q.8 - Now are you familiar with other jurisdictions in Canada 5 where applications for deemed capital structure have been 6 discussed and, if so, where and what were the nature of 7 the arguments and the outcomes? 8 9 Α. Yes. Just recently in Newfoundland these issues came up. 10 You are aware of that. There was a proposal by Newfoundland -- the utility, the state owned company in 11 12 Newfoundland, to set rates on the basis of a deemed 13 capital structure that had a greater equity component than 14 the actual equity component held by that enterprise in 15 Newfoundland. And there was a further recommendation by Ms. McShane to apply to that deemed equity capital 16 17 structure a cost rate consistent with that of investor 18 owned enterprisers. 19 The outcome of that case was that the regulator there concluded that it was not indeed an investor owned 20 21 utility, it was a state owned one, and hence we should

22 look to state owned sources to get the cost rates for the
23 actual debt and the actual equity, because there was
24 equity in that case, and applied debt costs for both.
25 For the embedded cost of debt it used a number very

- 5357 - Dr. Makholm - Direct by Mr. Hyslop consistent with the one I have used here in this case. And
for the actual retained revenues that we called equity in
that case, about 13 percent of the capital structure it
used to incremental cost of provincial borrowing in
Newfoundland.

Q.9 - Now in the various testimonies and in particular of Ms. 7 MacFarlane, she has indicated one of the long-term 8 9 objectives of this deemed capital structure and implied 10 rate of return on equity is to get the Province of New Brunswick off the quarantees of the NB Power -- or the NB 11 Power Corporation's debt and allow them to sustain their 12 13 own finance. Would you be prepared to comment with respect to this objective, Dr. Makholm? 14

15 Yes. It is an important objective for utility operations Α. 16 to be able to finance themselves. Doing so provides the 17 best signal to customers of what it costs to provide the 18 services. It's a useful goal to try to assure that the 19 company can charge rates consistent with its need to 20 operate and maintain and provide safe, adequate and 21 reliable services to the public.

The nature of the guarantee involved, however, is an interesting one. The guarantee currently provided that in New Brunswick here the Province clearly wants to get away from, I will call it Guarantee with a big G, it is an

1 - 5358 - Dr. Makholm - Direct by Mr. Hyslop -2 administrative direct Guarantee of the borrowings of the 3 utility. Whether that large G Guarantee exists or not, however, this is a state owned enterprise, regulated by a 4 state appointed Board, and ultimately responsible to a 5 state cabinet. The ability of the utility to pay off its 6 obligations in one sense or other, is guaranteed, small g, 7 by the Province. It's all within the Province. And if 8 9 the Province is willing to set utility rates or otherwise 10 obtain revenue sufficient to pay off interest on principle on debt that is required to meet the needs of the public 11 it will do so, whether it's a big G Guarantee or a little 12 13 g Guarantee. From the perspective of those who look inside the Province from outside, who provide the funds 14 15 that allow the utility to expand and to serve the public, whether it's a big G or a little q is not of material 16 difference. It's still the Province's enterprise and the 17 Province can obtain funds from the market if the Province 18 19 lives by its commitments.

20 Q.10 - Finally, Dr. Makholm, would you outline any

recommendations you would make to the Board on the issue of deemed capital structure and the rate of return on

23 equity that Disco should be entitled to?

24 A. The issue is not a theoretical one, it's a practical one.

25 It's what level of tariffs for consumers is

1 - 5359 - Dr. Makholm - Direct by Mr. Hyslop -2 sufficient for the utility to pay its actual bills. I put to the Board that if you look at it from consumers' 3 perspective, the answer is pretty clear. You would like 4 consumers to pay a level of utility rates that is 5 consistent with paying the operating costs of the company 6 and the company's actual -- that is, Disco's actual 7 financing costs. If it pays those costs then the twin 8 9 goals of the Board to provide just and reasonable rates 10 and credit sustaining revenues have been met. There is no need to provide any extra revenues other than those that 11 12 will allow you to meet those twin goals. And that's done 13 if you use the actual borrowing cost of the company to set 14 the rates for consumers. 15 MR. HYSLOP: Thank you, Dr. Makholm. Those are the 16 questions for the direct examination, Mr. Chair. I now 17 allow other Intervenors who wish to cross examine to 18 proceed. Good. Thanks, Mr. Hyslop. Mr. Morrison, do you 19 CHAIRMAN: want to go first or --20 21 MR. MORRISON: No. I believe I would be last before Mr. 22 MacNutt, Mr. Chairman. 23 CHAIRMAN: I figured that. Let me see. I think it's probably, Mr. Lawson. 24

25 MR. LAWSON: No questions, Mr. Chairman.

- 5360 - Dr. Makholm - Cross by Mr. MacDougall CHAIRMAN: He doesn't have to move after all. Mr.

3 MacDougall?

4 <u>CROSS EXAMINATION BY MR. MACDOUGALL</u>:

5 MR. MACDOUGALL: Yes, Mr. Chair. Thank you very much. Good
6 morning, Mr. Chair, Commissioners. Good morning, Dr.
7 Makholm.

8 A. Good morning.

9 MR. MACDOUGALL: Mr. Chair, I will primarily just be 10 referring to Mr. Makholm's direct evidence which is PI-15 and his responses to interrogatories which are PI-16, I 11 12 believe. However, there are a couple of documents that I 13 will be referring to quite a bit. One is the New 14 Brunswick White Paper on its energy policy and the other is the White Paper on an energy efficiency system for New 15 16 Brunswick.

The latter, the energy efficiency White Paper, is in the record as A-26, but because that was in the first part of the proceeding I will actually hand copies out. I have copies here so people can use it.

The White Paper on energy policy has only got into this proceeding in dribs and drabs as I understand, Mr. Chair. So what I would like to do is hand around copies of the complete White Paper because the pages I am referring to are not yet in the record. I thought it

- 5361 - Dr. Makholm - Cross by Mr. MacDougall -
better to put the entire White Paper in and we can have that
marked as an exhibit maybe before I start my questions.
MR. MACNUTT: I believe the White Paper has been marked. I
will just check.
CHAIRMAN: Sorry, Mr. MacNutt. I can't hear you.
MR. MACNUTT: I believe the White Paper has already been
introduced.
CHAIRMAN: I thought it had.
MR. MACDOUGALL: There has been pieces at different times,
Mr. Chair. If someone can point out where the entire
White Paper has been marked, if it's in the record, that's
fine. My reference where I saw it was two or three
pages here, two or three pages there, but maybe it has
been on a day that I wasn't here.
MR. MACNUTT: I believe I entered it, Mr. Chairman. Just
let me check.
MR. MACDOUGALL: Maybe someone can check and then we can
just know the exhibit number.
CHAIRMAN: Yes. Mr. MacNutt just I think indicated he is
going to check.
MR. MACNUTT: I think you will find that it has been entered
as PUB-12.
CHAIRMAN: Sorry. Repeat that, Mr. MacNutt?

1 - 5362 - Dr. Makholm - Cross by Mr. MacDougall -MR. MACNUTT: It has been entered as PUB-12. 2 3 CHAIRMAN: Thank you. MR. MACDOUGALL: Thank you, Mr. MacNutt. In any event, Mr. 4 Chair, I will hand out copies of both documents because I 5 assume they were part of the earlier process, so that all 6 parties will have it. As is apparently obvious, Mr. 7 Chair, in my life in Nova Scotia I act for pulp and paper 8 9 companies. 10 CHAIRMAN: They do have one left over there, don't they? MR. MACDOUGALL: Thank you, Mr. Chair. I think the 11 12 documents I have handed -- there are a few other 13 references throughout but this will make it a lot easier 14 because most of my comments will be on Mr. Makholm's 15 evidence and the Energy Policy. Q.11 - Mr. Makholm, prior to the preparation of your evidence, 16 17 had you read the New Brunswick White Paper on Energy Policy, PUB-12, a copy of which is now in front of you? 18 Prior to the preparation of your evidence? 19 20 Α. No. Q.12 - Have you subsequently read it? 21 22 A. No. Q.13 - Have you read any of it? 23 I know of its existence. 24 Α. 25 Q.14 - So have you read any of it?

1 - 5363 - Dr. Makholm - Cross by Mr. MacDougall -2 But no. I have to say no. Α. 3 Q.15 - So the context of your evidence is not given within the context of the Energy Policy of New Brunswick, correct? 4 I would not say that is the case. New Brunswick has 5 Α. legislation that defines the policy in New Brunswick under 6 7 which the companies and this Board act. But I am not aware that this White Paper is contained within that 8 9 legislation. 10 Q.16 - And what legislation are you talking about? A. The Energy Act -- the Electricity Act, that is. 11 Q.17 - Yes. So the Electricity Act? 12 13 A. Correct. Q.18 - Thank you. I would like to go through some of the 14 15 White Paper. If we could go to page 2. 16 A. Which White Paper? 17 Q.19 - I'm sorry, the White Paper New Brunswick Energy Policy. 18 The one I was just talking about. I apologize. They 19 are both White Papers. 20 Α. Is that --CHAIRMAN: Is that PUB-12? 21 22 MR. MACDOUGALL: PUB-12, the larger document. I don't see a date on that paper. 23 Α. Q.20 - It's not dated. There is no date on this document. 24

25 There never has been. I think it's December -- someone

1 - 5364 - Dr. Makholm - Cross by Mr. MacDougall -2 may have to help me, Mr. Chair. I know the document has never 3 had a date on it. I think in the introduction it may say -- December 2000, 4 if you go to page 2, Mr. Makholm, and you will see above 5 the heading "Policy Goals", and here I'm talking about not 6 Roman numeral II, actual page 2. The White Paper was 7 approved by Cabinet in December 2000. 8 9 Α. Yes. Q.21 - Thank you. Now under the heading "Policy Goals", the 10 first heading --11 12 Α. What page? Q.22 - Again page 2. You see a heading "Policy Goals"? 13 14 A. Yes. 15 Q.23 - And underneath that there is a subheading. It says, 16 following are the five key goals that form the basis of 17 the provincial Energy Policy, and then there is five 18 subheadings. 19 Α. Yes. 20 Q.24 - The first one is to a ensure a secure, reliable and 21 cost effective energy supply for residential, commercial 22 and industrial customers, correct? 23 A. Right. Q.25 - And I just want to read into the record the first 24

25 paragraph under that Policy Goal. "While energy security

1 - 5365 - Dr. Makholm - Cross by Mr. MacDougall -2 does not carry the same degree of urgency that it did during 3 the 1970s, reliability is even more critical. Supply diversity and flexibility reduce the dependence and thus 4 vulnerability on price and supply that can result from 5 over-reliance on any single energy source. The province's 6 energy supply interest can be enhanced by means of 7 continued improvements and efficiency of energy use. 8 9 There is also some potential for the development of 10 indigenous resources in the province. Reliability has become more of a factor, particularly for electricity with 11 12 the continued development of information technology based 13 businesses."

And would you agree that one of the statements made here under the first policy goal is that supply diversity and flexibility reduce the dependence and thus vulnerability on price and supply that can result from over-reliance on any single energy source?

19 A. I presume you are just asking me to confirm the language20 that is here.

21 Q.26 - That's correct.

A. And I would be happy to do that at any time -- if you want to quote me from this document I will be happy to confirm the language, although I don't know what the language means because I haven't read the document. - 5366 - Dr. Makholm - Cross by Mr. MacDougall Q.27 - No. But I think -- and that's very important, Mr.
Makholm, and I am going to take you through some items
because I want to get them on the record. And I think
it's important for people to hear this as we lead into
other questions.

7 A. Fair enough.

8 Q.28 - But I accept that you will probably agree with what the 9 words of the document say, and I appreciate that. But 10 just to follow up on the quote that I just took you to, 11 this is a statement regarding supply diversity amongst 12 differing energy sources, so that there is no over-13 reliance on any single energy source, correct.

14 A. If you are characterizing the document I can't agree with 15 you, because I haven't read the document. I don't know 16 what is in it. And this is a summary. I won't be able to 17 accept a characterization of yours that's different from 18 the language that you quote to me. It wouldn't be fair to 19 ask me because I haven't read the document.

Q.29 - Well I think this is extraordinarily fair to ask you,
Dr. Makholm, so I am going to continue with my questions.
Now I'm not asking you to read the document. These are
policy goals stated here. I am going to ask you what your
opinion is on the policy goals as stated here. Okay. So

1 - 5367 - Dr. Makholm - Cross by Mr. MacDougall -2 the first policy goal we just went through. Now I can read the words, if you would like, before I ask my question. 3 Α. Okay. 4 Q.30 - The words say, supply diversity and flexibility reduce 5 the dependence and thus vulnerability on price and supply 6 that can result from over-reliance on any single energy 7 source, correct? 8 9 Well as a general --Α. 10 Q.31 - Are those the words? A. Those are the words. 11 Q.32 - Okay. Now here is my question because you didn't 12 13 answer my question. My question is this is a statement 14 regarding supply diversity amongst differing energy 15 sources, so that there is no over-reliance on any single energy source, correct? 16 17 Well that would seem to be what this is about. Α. 18 Q.33 - Thank you. And the next sentence in the policy is that 19 the province's energy supply interests can be enhanced by 20 means of continued improvements in efficiency of energy use, correct? 21 That's the statement. 22 Α. 23 Q.34 - So in your view from that statement do you think that

the Province of New Brunswick believes the efficient use

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1 - 5368 - Dr. Makholm - Cross by Mr. MacDougall of energy is important to the enhancement of its supply 2 3 interests? That seems like a reasonably broad and platitudinous goal 4 Α. that you could -- anybody could agree to, yes. 5 6 Q.35 - I'm not saying whether you do agree, I'm saying don't 7 you believe that is what the Province is saying here? That's their goal? 8 9 It would seem to be the case, yes. Α. 10 Q.36 - Thank you. And if I can read now the second paragraph 11 of the first policy goal. The addition of natural gas to the region's energy mix enhances competition amongst 12 13 energy forms providing New Brunswick consumers with energy at the lowest possible cost can be accomplished by 14 15 ensuring that the interest of all energy consumers and the energy industry as a whole are considered. Do you see 16 17 those words, Dr. Makholm? 18 Α. I do. 19 Q.37 - Okay. Now would you acknowledge that this paragraph of 20 the first policy goal of the current New Brunswick Energy 21 Policy specifically refers to the addition of natural gas 22 to the region's energy mix enhancing competition amongst energy forms? 23

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24 A. Indeed that's your client, is that correct?

25 Q.38 - What is my client? There is lots of natural --

1 - 5369 - Dr. Makholm - Cross by Mr. MacDougall -The natural gas company here. I'm sorry. When you --2 Α. 3 Q.39 - They are the distributor. Can you answer the question. I will. I was just -- when we did our initial -- you 4 Α. represent the natural gas distributor here? 5 Q.40 - I represent the natural gas -- the general franchise 6 holder for the distribution of natural gas, Enbridge Gas 7 New Brunswick. 8 Fair enough. Thank you very much. Yes. 9 Α. 10 Q.41 - And I apologize, Mr. Makholm, if you didn't understand who I was representing. And particularly that paragraph 11 states that providing provincial consumers with energy at 12 13 the lowest possible cost can be accomplished by ensuring that the interests of all energy consumers and the energy 14 15 industry as a whole are considered, correct? Yes. 16 Α. 17 Q.42 - Now if we could go to policy goal number 2, Section 18 1.2.2. And that's entitled "Promote Economic Efficiency 19 in Energy Systems and Services". And starting in the second sentence of this goal, the White Paper states, and 20 21 I would like to read that in, "However, changes to the 22 market place require examination of the taxation 23 governance and perhaps even ownership regimes to achieve the maximum economic efficiency that will allow New 24 25 Brunswick companies and utilities to compete effectively

1 - 5370 - Dr. Makholm - Cross by Mr. MacDougall -2 in both the domestic and export markets". Correct? 3 Α. Yes. Q.43 - And the key goal enunciated in this statement is to 4 achieve the maximum economic efficiency to allow New 5 Brunswick companies and utilities to compete effectively, 6 correct? 7 Yes. 8 Α. 9 Q.44 - And if we can turn the page and go to goal number 3. 10 And that is to promote economic development opportunities. And if I could read the first paragraph into the record. 11 12 "New Brunswick has a relatively large energy intensive 13 resource-based manufacturing sector with a substantial 14 proportion of industry and business operating expenses 15 attributable to the cost of energy. The Province wishes 16 to sustain these operations as well as attract new 17 ventures that will enhance growth and employment 18 opportunities." So Mr. Makholm, would you agree that the government in the 19 20 White Paper on Energy was not looking at its energy policy 21 in a vacuum, but in fact one of the goals of the policy is to sustain its energy-intensive resource-based 22 manufacturing sector? 23 Yes. 24 Α.

25 Q.45 - And as well to attract new ventures to the province?

1 - 5371 - Dr. Makholm - Cross by Mr. MacDougall -2 Α. Yes. 3 Q.46 - Now if we could go to the second paragraph of that qoal. And it states "Access to a variety of energy 4 sources with stable, long-term competitive rates is 5 critical to the success of existing and new businesses as 6 they compete in the global marketplace." 7 Do you see that statement, Dr. Makholm? 8 9 Α. Yes. 10 Q.47 - And again here would you agree that the emphasis is on access to a variety of energy sources which among them 11 have stable, long-term competitive rates, not just 12 electricity? 13 Yes. 14 Α. Q.48 - Thank you. Now Dr. Makholm, if we could go to the next 15 16 policy goal, "Protecting and Enhance The Environment." 17 And the second and third sentences in particular of that 18 policy goal state "In addition the Province has made a 19 commitment to long-term environmental sustainability. 20 These will have an increasing effect on energy costs and 21 consumption, driving the markets toward cleaner, more efficient consumption and supply technologies", correct? 22 23 Α. Yes. Q.49 - And if you could read on through that paragraph, Mr. 24

25 Makholm. And if you could confirm that the goal also

1 - 5372 - Dr. Makholm - Cross by Mr. MacDougall -2 refers to national and international agreements on climate 3 change, air quality objectives and acid rain which commit Canada to emissions reductions? 4 5 Α. Yes. Q.50 - Thank you. And now if we could go to the last policy 6 objective, "Ensure an Effective and Transparent Regulatory 7 8 Regime." 9 And in the second paragraph the policy specifically states 10 -- and again I would like to read this into the record. "Recognizing that major changes will take place in the 11 12 marketplace and that New Brunswick cannot adopt an 13 isolationist stance, the Energy Policy seeks an 14 appropriate form of regulation for the restructured market, providing as much opportunity as possible for 15 16 adjustment and migration to a new regime that protects the 17 interest of all New Brunswickers. At the same time this 18 migration must be done in a timely fashion such that the 19 benefits of the new competitive systems do not pass by, strand or render any of our energy infrastructure and 20 21 industry obsolete or less competitive." And again, Dr. Makholm, the reference at the end of this 22 23 statement is to energy infrastructure, not solely to electricity, correct? 24

1 - 5373 - Dr. Makholm - Cross by Mr. MacDougall -2 Energy infrastructure and industry obsolete or less Α. 3 competitive. Q.51 - Correct. 4 Energy infrastructure and competitiveness. 5 Α. Q.52 - Correct. And as I say, we can turn back to the front 6 7 of this. This is the actual New Brunswick Energy Policy. 8 That is what it is entitled, "White Paper New Brunswick Energy Policy", not electricity, correct? 9 10 Α. That is its title. Q.53 - And then if we could just flip to the table of 11 12 contents, we will see there under Section 3, "Challenges 13 and Opportunities", that we have references in Section 3.1 to electricity and to 3.2 "Natural Gas", 3.3 "Refined 14 15 Petroleum Products, 3.4 "Energy Efficiency", 3.5 "Alternative Energy" and finally 3.6 "Environmental 16 17 Concerns", correct? 18 Α. Yes. Q.54 - And as I mentioned, Section 3.1 deals with electricity, 19 20 correct? Α. Yes. 21 Q.55 - So New Brunswick's policy with respect to electricity 22 23 is part of its broader policy with respect to energy supply and energy issues within the province, correct? 24

25 A. In the context of this White Paper, yes.

1 - 5374 - Dr. Makholm - Cross by Mr. MacDougall -2 Q.56 - Yes. Thank you. And Mr. Makholm, if we could just quickly qo back to page 3 2, the policy goals. And here under the heading 1.2, 4 "Following are the five key goals that form the basis of 5 the provincial Energy Policy." 6 7 So would you agree that activities undertaken to carry out the energy policy would be undertaken to achieve these 8 9 goals, since these are the goals that form the basis of 10 the policy? Well, these are the goals that form the basis of this 11 Α. White Paper. 12 Q.57 - Which is the provincial energy policy as stated in the 13 line I just read to you, "Following are the five key goals 14

15 that form the basis of the provincial energy policy"?
16 A. Correct. So what is your question?

Q.58 - I said activities undertaken to carry out the energy
policy would be undertaken to carry out these five goals?
A. Correct. Perhaps. That sounds reasonable.

Q.59 - Thank you. And Mr. Makholm, because of the tenor of your evidence, which I will be getting to shortly, and this is the background to how you have approached your evidence, a lot of questioning has gone on in this hearing related to electricity and provisions of the new

25 Electricity Act which you mentioned at the outset.

- 5375 - Dr. Makholm - Cross by Mr. MacDougall But I want to go for awhile to the section of the Energy
Policy that deals with natural gas, which is Section 3.2.
That is page 31, Dr. Makholm.

So you will see on page 31 the heading is "Natural Gas",
subheading "Background". And if we turn over to page 32.
I have just brought you there just for reference. But
this is on "Background".

9 And in the third full paragraph the sentence in bold reads 10 "The Province will encourage rapid economic development in 11 the natural gas infrastructure, making gas as widely 12 available as is economically justified and in a manner 13 that maximizes benefit to the citizens of New Brunswick", 14 correct?

15 A. Yes.

Q.60 - Okay. Now if we could go to page 34. And we are still 16 17 under the section on "Natural Gas". And if we could go to 18 the section entitled "Development of a Competitive Retail 19 Market. ANd if we could go to the paragraph at the bottom of the page, the second sentence. And that reads "If the 20 21 cost of gas is too high compared to its substitute, 22 consumers will not switch to natural gas, hampering the 23 development of the gas industry."

24 Do you see that, Dr. Makholm?

25 A. No. Where is it?

1 - 5376 - Dr. Makholm - Cross by Mr. MacDougall -2 Q.61 - I'm sorry. Page 34 --3 A. Yes. Q.62 - -- last paragraph, second sentence. 4 A. I see it, yes. 5 Q.63 - Okay. And just to read that again. "If the cost of 6 7 gas is too high compared to its substitute, consumers will not switch to natural gas, hampering the development of 8 9 the gas industry." 10 Α. Yes. Q.64 - And whether or not the cost of gas is too high compared 11 to its substitutes must, Dr. Makholm, depend on both the 12 cost of gas and the cost of the substitutes, correct? 13 A. Yes. 14 15 Q.65 - And in New Brunswick would you agree that for heating purposes, cooking purposes, drying and other general uses 16 17 of natural gas such as that, that electricity would be one of the key substitutes? 18 19 Α. Yes. Q.66 - Thank you. And finally if we could turn to page 36 20 21 under the heading "Market Based Fuel Selection." And I just want to read in the first sentence. 22 "For a competitive market to be efficient, all buyers and 23 sellers must be free to make rational economic decisions." 24

1		- 5377 - Dr. Makholm - Cross by Mr. MacDougall -
2		Do you agree with that, Dr. Makholm?
3	A.	Yes.

4 Q.67 - Thank you. And then I just want to go to the second
5 paragraph there and read that into the record, under the
6 heading "Market Based Fuel Selection."

"To determine the feasibility of converting to natural 7 qas, potential customers will consider costs associated 8 9 with the initial conversion of a heating system, water heaters or appliances and the ongoing operating costs. 10 11 The conversion costs will be comprised of capital costs 12 and related financing costs. Operational costs will include fuel costs, periodic maintenance costs, warranty 13 and extended warranty costs. Total estimated costs should 14 be compared to ongoing costs that would be incurred if the 15 16 potential customers were to continue with its current fuel 17 source. Ongoing costs would include fuel costs,

18 maintenance costs and potentially costs to comply with

19 environmental requirements."

20 Do you see that, Dr. Makholm?

21 A. Yes.

Q.68 - So would you agree that the comparison to determine the feasibility of converting to natural gas is a comparison to the ongoing costs that would be incurred if the potential customers were to continue with their current - 5378 - Dr. Makholm - Cross by Mr. MacDougall fuel sources?

3 A. Yes.

Q.69 - Thank you. And if someone was determining the 4 feasibility of converting from electricity to natural gas, 5 6 let's say either in the residential or the general service class in New Brunswick, for example, for their heating 7 load, they would compare their conversions costs and 8 9 ongoing operating costs for natural gas to the ongoing 10 costs that would be incurred if they stay with Disco, 11 correct? 12 Α. Yes. Q.70 - Thank you. And one of the costs that would make up the 13 14 Disco's costs would be the cost of capital that Disco was 15 allowed to include in its revenue requirement and thus in its rates, correct? 16 17 Α. Yes. 18 Q.71 - Thank you. And as a private sector competitive energy 19 supplier, the natural gas distribution company would 20 likewise be looking to recover its cost of capital in its rates, wouldn't you agree? 21 22 Yes. Α.

Q.72 - Thank you. Now Dr. Makholm, if we can turn to page 16
of your evidence which is exhibit PI-15. So page 16.
And this is a key thrust of my questions with respect

1 - 5379 - Dr. Makholm - Cross by Mr. MacDougall -2 to your evidence, Dr. Makholm. And I think it goes to your 3 comments earlier today. So I want to read in the question and the first two paragraphs of the answer, part of which 4 quote from Ms. McShane. 5 So the question was "In her opinion Ms. McShane discusses 6 7 Energy Policy in New Brunswick as a background to her recommendation on pages 2 through 4 of her testimony. Do 8 9 you agree with her discussion?" 10 And the first two paragraphs -- and I will come back to the third paragraph later -- of your answer is "No. Ms. 11 12 McShane appears to misapply the policy context. She 13 asserts that" -- and then quoting from Ms. McShane -- "if 14 Disco's rates do not include the full cost of capital, a 15 level playing field cannot be created, since other energy 16 firms with which Disco competes must stand on their own to 17 be economically viable." 18 You then continue with your answer. "Electricity 19 distribution companies in general have effective monopolies in their service territories. They do not 20 21 compete with other distribution companies. The same is 22 true for Disco. It has the same monopoly position

23 regarding the distribution of electricity in the province.

And so the creation of a level playing field is not

25 relevant to a discussion of Disco's delivery service

24

1 - 5380 - Dr. Makholm - Cross by Mr. MacDougall -2 operations. Certainly there is no justification under the 3 aeqis of a level playing field to construct Disco's rates to cover financing costs that it does not incur." 4 Now Dr. Makholm, if we could go back to Ms. McShane's 5 quote, she stated that if Disco's rates do not include the 6 full cost of capital, a level playing field cannot be 7 created since other" -- and her words are "energy firms", 8 9 not electricity firms, "with which Disco competes must 10 stand on their own to be economically viable", correct? That's what she said. 11 Α. Q.73 - Okay. But you then go on to say that electricity 12 13 distribution companies in general have effective 14 monopolies in their service territories and do not compete 15 with other distribution companies. But they do of course compete with other energy forms such 16 17 as with suppliers of natural gas, propane, fuel oil, 18 against DSM initiatives, don't they, Dr. Makholm? 19 Α. Yes. And that's precisely the reason why I used the word 20 effective monopoly and not total monopoly. There are 21 areas of rivalry, and for the reasons that you state, 22 regarding service to new subdivisions, service to a 23 consumer who may decide to put in an electric clothes dryer or gas clothes dryer. 24

25 But that does not detract from the affected monopoly

1 - 5381 - Dr. Makholm - Cross by Mr. MacDougall -2 of an electric company to whom consumers must go if they want 3 light and basic electricity service. Q.74 - Okay. But now we are narrowing this. And this is very 4 important, Dr. Makholm. Because you said in your response 5 6 to Ms. McShane "No. Ms. McShane appears to misapply the policy context." 7 Yes. 8 Α. 9 Q.75 - But to my reading this quote from Ms. McShane is 10 completely consistent with the New Brunswick Energy Policy 11 that I have just read to you, is it not? 12 I would say no. And the reason for that is that when Ms. Α. 13 McShane talks about the full cost of capital she is 14 referring to a cost of capital for an investor-owned 15 utility, not a state-owned enterprise. Q.76 - Now can we step back, Dr. Makholm? That is not what 16 17 I'm getting to. Here we are talking about the policy 18 context in which she developed her evidence vis-a-vis the 19 policy context in which you developed yours. 20 I don't want to go any farther than that. Because I want 21 to stick with this quote. She said "If Disco's rates do not include the full cost of capital, a level playing 22 23 field cannot be created, since other energy firms with which Disco competes must stand on their own." 24 25 You then went on to talk about electricity

1 5382 - Dr. Makholm - Cross by Mr. MacDougall -2 distribution companies. You never noted anywhere in here that 3 there are other energy firms, which you just acknowledged EGNB being one, would have to have a return on capital 4 they would have to recover, correct? 5 I did acknowledge by saying that's the reason why I say 6 Α. effective monopoly. It's manifestly obvious for any 7 8 jurisdiction that has unaffiliated electric and gas 9 companies in climates that have cold weather, that those 10 gas companies and electric companies are rivals in certain 11 respects. Q.77 - You never --12 That's why I used the word effective monopoly. I 13 Α. 14 appreciate you are giving me the ability to explain it. 15 With respect to Ms. McShane's quote, you cannot interpret 16 that quote without looking at the term, full cost of 17 capital.

18 She uses full cost of capital to mean not the cost of 19 capital of the public enterprise that we have got in 20 question, but the cost of capital for a different 21 enterprise.

Q.78 - I totally agree with that, Dr. Makholm. But nowhere in your evidence did you -- so your reference to all of the other opportunities, oil which is available, propane which is available, natural gas, that was all caught in the

1 - 5383 - Dr. Makholm - Cross by Mr. MacDougall concept of the effective monopoly, although you went on in the 2 next sentence to say they do not compete with other 3 distribution companies. 4 And the whole tenor of the paragraph is just about 5 distribution companies. However, you are telling me you 6 thought about all of those other energy suppliers when you 7 were writing this answer? 8 9 Α. Of course. And that's why I used the word effective 10 monopoly, not complete or total. Q.79 - Thank you, Dr. Makholm. Now if we can go to your 11 12 response to EGNB IR-1A which is exhibit PI-16. 13 Mr. Chair, this is the responses to information requests. I don't have them in a binder form. I don't know if you 14 have them in a binder. So I can't tell you which tab. 15 16 But this is at PI-16. And it is the responses to EGNB IR-17 1A. Now, Dr. Makholm, I would like --18 Wait, wait, wait. Since you haven't given it to me I have 19 Α. to find it. The --20 21 Q.80 - I'm sorry. Maybe Mr. Hyslop can give you the page. CHAIRMAN: Would you give us the citation again? 22 MR. MACDOUGALL: EGNB -- PI Exhibit 16, response to EGNB IR-23 I apologize, Dr. Makholm. These were your responses, 24 1A. 25 so I assumed you had a copy. - 5384 - Dr.

1 Makholm - Cross by Mr. MacDougall -

2 A. If you can give me a hand by telling me how the reference3 to that question starts?

4 Q.81 - "At page 17 Mr. Makholm states electricity distribution
5 companies...".

6 A. I have it.

7 Q.82 - Okay. If everyone else has it -- because, Dr. Makholm, 8 I'm confused about what we just talked about, that's why I 9 wanted to go back to this. At this question it says "At 10 page 17 Mr. Makholm states -- and this in fact is the exact sentence you just referred to -- electricity 11 distribution companies in general have effective 12 13 monopolies in their service territories, and we were quoting this reference to you, and we go on with the rest 14 of the reference." 15

We then ask the first question, question A, "In making 16 17 this comment did Mr. Makholm consider competition between 18 Disco and the provincial natural gas distributor, Enbridge Gas New Brunswick? Answer, no. For the distribution of 19 20 electricity Disco has an effective monopoly in its service 21 territory. That electricity distribution monopoly is not affected by providers of other fuels or alternatives to 22 23 electricity. If a household or business in the province wants electricity to be distributed to it must pay Disco 24 25 to do so." So again I just want to come back now then, so

1 - 5385 - Dr. Makholm - Cross by Mr. MacDougall now you are telling us you did consider alterative fuel 2 3 providers? Well look at the context of that answer. I'm talking 4 Α. about for the distribution of electricity there was no 5 other competitor to Disco in the province. That's 6 something that is clear to us all. 7 Q.83 - True. But I asked you if you had dealt with other 8 9 energy suppliers. Today I expected you to say no because 10 you said no in your responses to your undertaking and now this morning you are saying yes. So I would just like to 11 know whether it was yes or whether it was no. 12 No, I don't think there is any inconsistency here. 13 What I Α. 14 have said and what I have said is manifestly clear, is 15 that the -- for instance, the firm that you represent as a gas distributor entrant into a province formerly served 16 17 almost solely by electricity for the types of purposes 18 that your clients want to now serve you are a competitor 19 and you are a rival for certain kinds of load. That we 20 know. And there is nothing about my evidence inconsistent with that. The idea that the --21 Q.84 - I would beg to differ. 22

A. Excuse me. Let me finish. The idea that the electricity
distribution company is the sole electricity distributor
in the province is an important fact as well.

1 5386 - Dr. Makholm - Cross by Mr. MacDougall -There is no other firm to go to if you want electricity other 2 than Disco. Those two facts are facts. There is no 3 4 dispute about them. And there is nothing in my evidence that denies either the rivalry of your clients with the 5 electric company or the effective monopoly of the 6 electricity distributors that exist in the province. 7 Q.85 - Well, Mr. Makholm, I beg to differ, but I will go to my 8 9 questions. There is nothing in your evidence -- as you 10 stated earlier, you did not ever read the Energy Policy, 11 correct? 12 A. Correct. Q.86 - And there is no reference in your evidence in this 13 14 question to any other energy providers, correct, notwithstanding the fact that Ms. McShane particularly 15 16 developed her recommendations based on the Energy Policy, 17 correct? 18 I'm not sure about that last statement. Α. Q.87 - Well let's go back to her quote. "If Disco's rates do 19 not include the full cost of capital, a level playing 20 21 field cannot be created, since other energy firms with which Disco competes must stand on their own to be 22 economically viable." She does not refer to electricity 23 firms, correct? 24

25 A. She is not being specific either way. - 5387 -

1	Dr. Makholm - Cross by Mr. MacDougall -
2	Q.88 - Well she says other energy firms, Dr. Makholm.
3	A. And she could be referring there to other electricity
4	firms.
5	Q.89 - Well she could, but energy is broader than electricity,
6	correct?
7	A. Well let's not quibble. We have one
8	Q.90 - No. We should quibble. This is extremely important.
9	CHAIRMAN: Mr. MacDougall, we are getting argumentative, or
10	we have been. Would you just try and wrap this line up,
11	so we can take our break.
12	MR. MACDOUGALL: Certainly, Mr. Chair. Just give me one
13	moment, Mr. Chair, I may have a few questions.
14	CHAIRMAN: Certainly.
15	MR. MACDOUGALL: Mr. Chair, I think now is a fine time for a
16	break.
17	CHAIRMAN: Good. Thanks, Mr MacDougall. We will take our
18	break.
19	(Recess)
20	CHAIRMAN: Go ahead, Mr. MacDougall.
21	Q.91 - Thank you very much, Mr. Chair. I made valuable use of
22	time at the break and I have deleted quite a few areas
23	that I think were adequately covered. I appreciate you
24	calling the break at that time. It allowed me to do that.
25	If we could go, Dr. Makholm, to again the IR

1 - 5388 - Dr. Makholm - Cross by Mr. MacDougall -2 responses, exhibit PI-16, your response to EGNB IR-5A. I just 3 have a few more questions on the topic of Energy Policy, although we are now moving off of the Energy Policy and 4 onto the White Paper on an Energy Efficiency System for 5 New Brunswick. Again as I say I only have a couple of 6 7 questions. And in that response, 5A, we had laid out a quote from the 8 9 White Paper on an Energy Efficiency System which is A-26, 10 and you were asked whether you had reviewed that White Paper prior to the preparation of your testimony and your 11 12 response was no, correct? 13 Α. Correct. Q.92 - And again I would just like to ask, have you 14 15 subsequently reviewed the White Paper on Energy Efficiency? 16 17 Α. No. 18 Q.93 - Thank you. Now if we could turn back a couple of pages 19 in response -- your response to EGNB-3 where you were 20 asked whether you were aware that the debt of the NB Power 21 group of companies which was absorbed by Electric Finance 22 Company was \$237 million. You said that you were aware in 23 general of this and that EFC had absorbed some debt during their restructuring process. However you were not 24 25 specifically aware of the hand-out that referenced the 237

1 - 5389 - Dr. Makholm - Cross by Mr. MacDougall million, correct? 2 3 A. Correct. Q.94 - So when you said in general what ballpark did you 4 understand at the time of preparation of your evidence EFC 5 had absorbed in debt from the NB Power group of companies? 6 7 Well in general it was the debt of the enterprise which Α. would have been in the range of a small handful of 8 9 hundreds of millions of dollars. Q.95 - A small handful of hundreds of millions of dollars? 10 Yes. Well that's it. 237 million. It's not inconsistent 11 Α. with what I would have expected. 12 Q.96 - Okay. And this absorption of debt by the Electric 13 Finance Corporation was part of the restructuring of the 14 15 electricity regime in New Brunswick, correct? That's my understanding. 16 Α. 17 Q.97 - And is it also your understanding that the 18 restructuring was part of the implementation of the New 19 Brunswick Energy Policy as it applies to electricity? The Energy Policy in -- I would say in a general sense, 20 Α. 21 yes. Q.98 - Thank you. You are not suggesting anywhere in your 22 23 evidence, are you, Dr. Makholm, that the referable portion of the debt for Disco that was absorbed by EFC be put back 24

25 on Disco's books, are you?

1	- 5390 - Dr. Makholm - Cross by Mr. MacDougall -
2	A. I'm sorry. I didn't catch a word in that question.
3	Q.99 - Certainly. You are not suggesting anywhere in your
4	evidence that the referable portion
5	A. The what? Excuse me. That's the word.
6	Q.100 - Referable.
7	A. Referable. Okay. Thank you.
8	Q.101 or any portion of the \$237 million of debt for
9	Disco be put back on Disco's books, are you?
10	A. No.
11	Q.102 - So you are fine with the aspect of the restructuring
12	that removed costs from Disco?
13	A. I don't understand the question.
14	Q.103 - Well the question is the restructuring is an overall
15	part of the Energy Policy. It's a major restructuring.
16	One aspect of it was to remove hundreds of millions of
17	dollars from the NB Power group of companies' debt. You
18	don't have a problem with that having occurred as part of
19	the overall restructure?
20	A. The placing of debt in one provincial pocket or another,
21	the answer is no. You asked a question about the costs of
22	the distributor. I would say that those are two different
23	things.
24	Q.104 - Well no, there was debt. Well let's go through them.

25 The NB Power group of companies had X amount of debt,

1 - 5391 - Dr. Makholm - Cross by Mr. MacDougall -2 correct? Prior to the restructuring an amount of it was put 3 into EFC, some of it was used with respect to capitalization of the transmission company and 237 million 4 I understand resides with the Electric Finance Corporation 5 wholly outside of the New Brunswick Power group of 6 companies, correct? Is that your understanding? 7 Yes, that's my understanding. 8 Α. 9 Q.105 - Okay. And my question to you is you have no problem 10 with the aspects of the restructuring that put \$237 million of the NB Power group of companies pre-exiting 11 12 debt outside of the NB Power group of companies and outside of Disco? 13 Correct. 14 Α. Q.106 - Thank you. And do you understand though that this 15 16 debt continues to bear a cost and has to eventually 17 retired by EFC? 18 Α. Yes. Q.107 - And to do that EFC has to get funds from the 19 20 restructured NB Power companies, correct? 21 Α. Yes. Q.108 - And if we haven't done that otherwise we would have 22 23 just transferred all of these costs from the ratepayers to the taxpayers, correct? 24

25 A. Yes.

1 - 5392 - Dr. Makholm - Cross by Mr. MacDougall -2 Q.109 - Now if Disco only recovers its cost of debt, Dr. 3 Makholm, and nothing else, it will not have any retained earnings from which to pay dividends, will it? 4 Correct. Although any enterprise can pay a dividend from 5 Α. whatever source it wishes. 6 Q.110 - Sure. But if all it's able to recover is its cost of 7 8 debt, it will not have any retained earnings from which to 9 pay dividends, will it? 10 Α. Well it won't have any retained earnings as such. This is a publicly owned enterprise. It doesn't have any investor 11 earnings or private earnings. But if you are talking 12 13 about revenues in excess of costs, if you want to call 14 those earnings, you may or may not based on how things work out in its service territory and the time its rates 15 are in effect. 16 17 Q.111 - Sure. But with respect to a capital structure it 18 would not have any approved return, it would only be able 19 to recover the actual cost of its debt. That's what you 20 are suggesting, correct?

A. Well its tariff would be structured to do that. Whether
or not it does that or more or less is a function of what
happens during the period of time the rates are in effect.
Q.112 - Correct. Now, Dr. Makholm, would you agree that

25

1 - 5393 - Dr. Makholm - Cross by Mr. MacDougall -2 without a capital structure actual or notional that has an 3 equity component, you cannot establish commercial operating rates that would provide the utility with 4 operating income that would provide a coverage premium to 5 its actual debt interest costs, can you? 6 Without -- let's focus on actual. Okay. Without a set of 7 Α. 8 tariffs that provides a margin over -- that builds in a 9 margin over the actual interest costs facing the 10 enterprise during the period of time you are calculating tariffs of the test year, there won't be any built-in 11 12 level of revenue to cover more than one times the interest 13 payments. That's by definition.

14 Q.113 - Correct.

15 A. It's a definitional issue.

16 Q.114 - Correct. Okay. Now would you agree then, Dr.

17 Makholm, that the equity component of the overall return 18 of an enterprise not only provides coverage of debt 19 interest expense or can provide coverage of debt interest expense, but also provides earnings that can be retained 20 21 by the company for the payment of dividends as we discussed or the development of equity in the business and 22 also for future capital expenditure requirements? Would 23 you agree with that? 24

25 A. If you build a margin into tariffs above what -- or

- 5394 - Dr. Makholm - Cross by Mr. MacDougall let me answer it just in a slightly different way. I think it
 will get to the answer of your company.

4 Q.115 - Yes.

5 A. If you structure tariffs so that there is a margin built
6 in above what is required simply to finance the interest,
7 then you will develop -- you will structure tariffs to
8 create extra revenues, and what you do with those extra
9 revenues is the issue.

10 Other publicly owned enterprises that are clients of mine use those extra funds for the purpose either of paying --11 12 using them for cash to pay interest or for using the for 13 future capital improvements keeping them within the 14 enterprise and using those funds for the benefit of 15 ratepayers, not allowing them to go elsewhere or to the state or to some other function, but keeping them within 16 17 the utility for the benefit of ratepayers.

18 Q.116 - Okay. Thank you very much, Dr. Makholm. And if all 19 Disco ever does is recover its cost of debt -- and let's 20 assume because we will get back to your comments sooner or 21 later -- that its other costs are equal to what the Board 22 had approved -- the only way that it could ever deal with 23 capital expenditures is to continue to borrow, correct? 24 A. Yes.

25 Q.117 - Thank you. And if it has not developed any equity or

1 - 5395 - Dr. Makholm - Cross by Mr. MacDougall -2 any retained earnings in the business, it will continue to 3 need the provincial quarantee in order to borrow, correct? Well guarantee, large or small G, I have said that there Α. 4 is no great difference between the two. It is a 5 provincial run organization regulated by provincially 6 7 appointed people who are ultimately responsible to a provincial cabinet. The guarantee is there. 8 9 Q.118 - Yes. But it will continue to meet that guarantee if 10 it is not able to get any retained earnings into the business, correct? 11 It will have that guarantee as a provincial entity. 12 Α. 13 Q.119 - But it will also require it in order to borrow funds. 14 It wouldn't be able to borrow its funds at any reasonable 15 rate without the guarantee, correct, because it would have 16 no interest coverage ratio? Explain to me how without any 17 interest coverage ratio it could borrow funds at a 18 reasonable rate without the provincial quarantee? If the Province's credit is good and investors believe 19 Α. that the Province lives by its commitments, then the 20 21 company can readily borrow from the market, whether there is a coverage ratio or not. 22 23 Q.120 - Without any guarantee?

24 A. No. Let's talk about --

25 Q.121 - That's what I am getting to. Let's just bring the

1 - 5396 - Dr. Makholm - Cross by Mr. MacDougall -2 question back because I do want to be very clear. I think we 3 are clear now on how the retained earnings can or cannot be used and on the issue about the coverage ratio. But if 4 all Disco ever does -- Disco, which is a subsidiary of the 5 NB Power group of companies -- is recover its cost of 6 7 debt, how could it borrow at any reasonable cost unless it continues to have the provincial guarantee, because it has 8 9 no coverage ratio? 10 Α. It continues to borrow because investors know that the Province makes good on its investments, whether there is a 11 12 big G Guarantee or not. Q.122 - So your view is that there is no value to the 13 14 Provincial guarantee and it's not required for Disco? 15 Not precisely. The idea that you have firm and entrenched Α. 16 and well defined pathways to get money to pay interest and 17 principal is a benefit and a perceived benefit to 18 potential lenders to political subdivisions of the 19 Province. But whether or not there are well codified, clearly laid out Guarantees, big G, lenders to Provincial 20 21 enterprises will look at the credit worthiness of the 22 Province to decide whether or not money borrowed for 23 Provincial purposes is going to be repaid. So there may be a benefit, there may be basis points benefits, to a big

25 G Guarantee, but it doesn't mean that without the big G

24

- 5397 - Dr. Makholm - Cross by Mr. MacDougall Guarantee the creditworthiness of the state run enterprises
 does not exist. It still exists.

4 Q.123 - So in acting for lenders you are telling me the
5 lenders you have dealt with are comfortable with dealing
6 with subsidiary Crown corporations without Provincial
7 guarantees in their borrowings?

And I can state one in particular. I deal with them Yes. 8 Α. 9 frequently and I have in the last couple of months. The 10 company -- there are not many large state owned or federal government owned electric utilities in the United States, 11 12 but one of them is in South Carolina by the name of Santee 13 It's well known. It's a political subdivision of Cooper. the State of South Carolina. It does not have a state 14 15 guarantee for its debt. Nevertheless, it borrows money 16 without any trouble from the capital markets because 17 ultimately it is operated and overseen by an appointed 18 state Board.

19 Q.124 - What do you mean by it's operated and overseen by an 20 appointed state Board?

21 A. It's operated by -- excuse me -- it's operated by

professional utility executives and operating people. And it is -- it reports to a Board that is appointed by the Governor of the State of South Carolina.

25 Q.125 - So do you see any boundary to the Provincial guarantee

1 - 5398 - Dr. Makholm - Cross by Mr. MacDougall for Disco, Dr. Makholm? 2 3 Α. Big G Guarantee. There may be some value to communicating the cleanest possible pathway for the 4 repayment of funds, but it is not a necessary component 5 for Disco to be able to borrow funds. 6 7 Q.126 - Would you agree that the development of retained earnings would begin to develop a common equity base in 8 9 Disco and contribute to the development of its stand alone 10 credit quality separate from the Province? The question is stand alone credit quality separate from 11 Α. 12 the Province. I don't understand the question. It is 13 irretrievably a Provincial organ and its creditworthiness is irretrievably tied with the creditworthiness of the 14 15 Province. Q.127 - No. I'm talking about the future, Dr. Makholm. I 16 17 said and the development of retained earnings would begin 18 to develop a common equity base in Disco and contribute to 19 the development of its ability to achieve a stand alone credit quality, would you agree with that? 20 Well it's a compound question connected by the word and. 21 Α.

22 The first part of your question was would retained

earnings contribute to the equity component of the capital
structure and by definition the answer is yes. The money
has got to go somewhere. It would be called equity. If

1 - 5399 - Dr. Makholm - Cross by Mr. MacDougall -2 you charge rates that are greater than the cost of paying the 3 interest for the capital component of the tariffs, the money would go into what we would call equity. 4 Q.128 - Right. 5 6 Α. The equity of the Province in the enterprise. That's 7 going to happen. That's a matter of course. To the extent that the second part of your question is true 8 9 depends on whether you think that that's needed for Disco 10 to be able to go to the capital markets and continue to borrow funds, and I'm saying that it's not. 11 Q.129 - And you are saying it's not because of why? 12 Because ultimately the creditworthiness of Disco depends 13 Α. on the creditworthiness of the Province. 14 15 Q.130 - So in your view it is never important for Disco to 16 achieve a coverage ratio or a coverage premium to its 17 debt? 18 I didn't say that. Α. 19 Q.131 - Does it need to do that in order to borrow at a 20 reasonable rate in the markets? 21 Α. No. Q.132 - Okay. Dr. Makholm, would you agree that a competitive 22 23 private sector supplier to Disco, whether it's an oil company or my client, could not attract capital at the 24 25 cost you are proposing be set in Disco's rates?

1 - 5400 - Dr. Makholm - Cross by Mr. MacDougall -2 Α. I'm sorry. You are talking about an investor owned 3 enterprise? Q.133 - Correct. 4 A. That's correct. 5 6 Q.134 - If we could go to your response to Disco IR-10. Again it's still in PI-16. 7 A. Can you read me the first words in the reference part? 8 9 Q.135 - Rebuttal testimony of Jeff D. Makholm. Question: "At page 22 Dr. Makholm discusses business risk and the risks 10 to the bondholders." 11 A. Yes, I have it. 12 Q.136 - And in that response, just to see if I have that 13 correct, Dr. Makholm, you acknowledge that the risks 14 15 normally borne by the bondholders are transferred to the Province because of the provincial guarantee, correct? 16 17 A. Yes. 18 Q.137 - Now if there is no provincial guarantee, where are the risks that are normally borne by the bondholders 19 transferred to? 20 A. If there is no big G Guarantee? 21 Q.138 - Correct. 22 23 They are borne by the Province. Α. Q.139 - They are still borne by the Province? 24

25

A. Yes.

1 - 5401 - Dr. Makholm - Cross by Mr. MacDougall -2 Q.140 - Okay. Yet you are saying the bondholders wouldn't 3 have any different. They wouldn't need a guarantee. They wouldn't see any difference or benefit in the guarantee? 4 I did not say that either. 5 Α. Q.141 - Okay. So there is a benefit to having a provincial 6 7 quarantee? To locking in a well-defined institutional payment scheme 8 Α. 9 is a benefit to lenders. 10 Q.142 - Dr. Makholm, if we could go now to EGNB IR-8? The one starting "Please estimate"? 11 Α. Q.143 - "Please estimate the interest coverage ratio." And 12 13 here you were asked to estimate the interest coverage 14 ratio underlying your proposed rates. 15 And you said your recommended return, which comes from actual interest costs, by definition provides for interest 16 17 in test year regulated revenues, correct? 18 Α. Yes. 19 Q.144 - Okay. But just to be clear here, but you are not 20 suggesting any interest coverage for Disco. It just actually happens to cover its actual rates? 21 22 A. Well, it's a coverage of one. 23 Q.145 - Yes. It is a coverage of one? 24 A. Correct.

25 Q.146 - Thank you. Dr. Makholm, a couple of weeks ago Mr.

1 - 5402 - Dr. Makholm - Cross by Mr. MacDougall -2 Hyslop had Ms. MacFarlane confirm on the record that NB Power 3 at the time of restructuring had approximately \$3.5 4 billion worth of assets and about \$3.5 billion worth of 5 debt. Do you recall those figures? 6 7 A. No. Q.147 - Could you just take them subject to check? And I will 8 9 give the transcript references for the record, page 3535 10 and 3534. 11 A. Yes. Q.148 - And what do you think the capital markets would think 12 13 of lending money to an entity with that portion of debt 14 and no equity and no interest coverage ratio, or no 15 coverage above one? A. What would they think? 16 17 Q.149 - Yes. 18 Α. There would be nothing remarkable about that for a state 19 run enterprise. Q.150 - Dr. Makholm, I just have two lines of question. One, 20 21 I might want to just take a brief moment to break to see if I have to follow up on it. 22 23 But one arrives out of your comments this morning, I think 24 where you were talking about deemed capital structures?

25

- 5403 - Dr. Makholm - Cross by Mr. MacDougall 2 A. Yes.

3 Q.151 - Are you aware of the use of deemed capital structures4 in other jurisdictions?

5 A. Yes.

6 MR. MACDOUGALL: Thank you. Mr. Chair, if I could just have 7 a moment. I don't think we have to break or anything. I 8 just need to flip through my notes. And I will only have 9 one other short line of guestions.

10 CHAIRMAN: Go ahead and take your time, Mr. MacDougall. And 11 while you are doing that -- Doctor, in our parliamentary 12 democracy this Board is appointed by government. But we 13 are responsible to the Legislative Assembly.

And I understand that to be a subtle difference. But it therefore means that any directions that we take have to come from the House itself in the form of legislation.

17 Otherwise we can operate on independent discretion.

18 WITNESS: Yes. I'm generally familiar with that.

19 CHAIRMAN: Yes.

20 WITNESS: That is praiseworthy way of governing, I think.

21 It is a check and balance in other words.

22 CHAIRMAN: Yes. That is correct.

Q.152 - Dr. Makholm, I don't think you have a law degree and
it is a legal question. But I just want to put it on the
record. Not to ask you your analysis but just to make you

- 5404 - Dr. Makholm - Cross by Mr. MacDougall aware of something, okay.

Section 8 of the Electricity Act is headed "Agency Status 3 4 of Corporation and Subsidiaries." And I will just read this out. I apologize. I wouldn't have gone here except 5 for your questions. 6 8(1) reads "The Corporation", being the holding 7 corporation, "is not an agent of the Crown for any 8 9 purpose." Section 8(2) says "The Distribution 10 Corporation, the Generation Corporation and the Transmission Corporation are not agents of the Crown for 11 12 any purpose." 13 Were you aware of those provisions when you were talking about whether or not lenders would lend to Disco without a 14 15 guarantee? Yes. I read the Act. But I don't know what those terms 16 Α. 17 mean as a legal -- as you say, I'm not a lawyer. 18 Q.153 - So you don't know what a lender would think of a 19 statutory stipulation on a company that said it was not an agent of the Crown for any purpose, do you? 20 21 I don't know what the term "agent of the Crown" means. Α. But I do know what a lender would look at when it saw a 22 23 wholly provincial-owned utility regulated by a provincial 24 entity responsible to Provincial Legislature and a 25 Provincial Cabinet, they would know that that language

1 - 5405 - Dr. Makholm - Cross by Mr. MacDougall -2 notwithstanding, there would be no way for that provincial agency to default or to bankrupt without damaging the 3 creditworthiness of the Province. And that can't happen. 4 Q.154 - Correct. But have you ever dealt with any lenders 5 lending to Crown corporations who had legislation that 6 specifically indicated that they were not agents of the 7 Crown for any purpose? 8 9 Α. I don't know what that means. I'm sorry. I can't answer 10 the question. Q.155 - No. That is great. 11 12 MR. MACDOUGALL: Thank you, Mr. Chair. Those are my 13 questions. Thank you, Mr. MacDougall. 14 Α. MR. MACDOUGALL: Thank you, Dr. Makholm. 15 16 CHAIRMAN: Doctor, let me assure you there are a number of 17 lawyers in this room who wonder what an agent of the Crown is. We have had this discussion many times. 18 19 WITNESS: Thank you. CHAIRMAN: Any questions from the Irving Group, Mr. Booker? 20 MR. BOOKER: No, Mr. Chair. 21 CHAIRMAN: Thank you. And I guess maybe Mr. Gorman? 22 MR. GORMAN: Thank you, Mr. Chairman. The Municipal 23 24 Utilities have no questions for Dr. Makholm.

25 CHAIRMAN: Okay. Mr. Morrison?

- 5406 - Dr. Makholm - Cross by Mr. Morrison MR. MORRISON: Thank you, Mr. Chairman. I do have some
 questions for Dr. Makholm.

4 <u>CROSS EXAMINATION BY MR. MORRISON</u>:

5 Q.156 - Good morning, Dr. Makholm.

6 A. Good morning, Mr. Morrison.

Q.157 - Before I turn to my prepared questions, Dr. Makholm,
there were a couple of comments made this morning. The
Chairman has touched on it. And Mr. MacDougall has just
touched on it.

You have said several times -- and correct me if I'm wrong -- but is it your view that the benefits that Disco has as being -- I think your term was "irrachievably a provincial organ" and that the small g guarantee of the Province, part of that benefit is because this Board is an organ of

16 the Provincial Government.

Because you mentioned it three or four times in the courseof your statements this morning.

19 A. I'm not sure that I understand the word "benefit" in your
20 -- benefit of what to whom?

21 Q.158 - Let me rephrase my question. Several times this

22 morning you said that because Disco is an organ of the

23 Provincial Government --

24 A. Yes.

25 Q.159 - -- and that the rates are set by a regulator who is an

1 - 5407 - Dr. Makholm - Cross by Mr. Morrison -2 organ of the Provincial Government, if you will, that that is 3 important to your conclusion that Disco could obtain financing without the big G Guarantee but only the small q 4 5 quarantee. Am I missing something in your --6 No. 7 Α. Q.160 - -- statement? 8 9 No. You are not missing anything. Α. 10 Q.161 - Okay. Now the Chairman pointed it out, and I think it is an important distinction to make, Dr. Makholm, that 11 12 this Board is not answerable to Cabinet, is not directly 13 an organ of government. 14 Do you understand that? Big G, little g. I don't want to imply that you are an 15 Α. 16 organ of Cabinet. I know that that is a different sort of 17 animal. Nevertheless this is a function of government, 18 small q of the Province, correct? And as such that's the way I was speaking about it. 19 They are responsible ultimately to the voters of the 20 21 province, the government of the province. Q.162 - The government is. This Board is not. 22 23 But I know that there may be distinctions in terms of Α. 24 government meaning Cabinet that I'm not intending to 25 convey.

1 - 5408 - Dr. Makholm - Cross by Mr. Morrison -2 0.163 - Fine. And this arises from the last line of 3 questioning from Mr. MacDougall. 4 If I understand your evidence this morning, you believe that Disco could go out into the capital markets, borrow -5 - raise whatever debt financing it required, without a big 6 G Guarantee from the Provincial Government, is that 7 correct? 8 9 Well, not so much I believe. It's what I conclude on the Α. 10 basis of having done this for 20 years, both for investorowned and government-owned utilities. 11 I concluded that yes, they could do so as long as the 12 13 Province's creditworthiness is strong. Q.164 - Okay. So just so I'm clear, when were are talking 14 15 about a big G Guarantee and a small g quarantee, a big G 16 Guarantee would be what I would call a formal guarantee, a 17 written guarantee signed by the Provincial Government. 18 Would you agree with that? 19 Α. Yes, with a pathway specified in advance to get the funds 20 say from general revenues --21 Q.165 - In the event that --22 -- or some other source of cash that's ready and Α. 23 available. Q.166 - In the event that Disco defaulted on its debt 24

25 obligations, correct?

1 - 5409 - Dr. Makholm - Cross by Mr. Morrison -2 Well, I wouldn't expect them to default. But in case Α. 3 there was cash needed to pay interest or principal, yes. Q.167 - But the purpose of the guarantee is to ensure the 4 lender that it has recourse in the event that the 5 principal debtor defaults in its debt obligations, isn't 6 that correct? 7 A. In general yes, that's correct. 8 9 Q.168 - Okay. So then when we talk about the small q 10 guarantee that you are talking about, you are talking about -- I think some people referred to it as the halo 11 effect. Is that a fair statement --12 13 Α. No. Q.169 - -- the fact that Disco is an organ of government and 14 15 the Province has deep pockets, therefore it can go out and borrow with a formal guarantee? 16 17 No. I'm not sure about the halo effect. Α. 18 Q.170 - Okay. But in any event it is your opinion that Disco could raise debt in the capital markets without a formal 19 20 written big G Guarantee? 21 Α. Yes. Q.171 - Okay. I don't know whether you have had the 22 23 opportunity to read all the transcripts. And I don't have a specific transcript reference here. 24

But I know that it has been stated in the evidence,

25

- 5410 - Dr. Makholm - Cross by Mr. Morrison -Dr. Makholm, that -- and I believe it was Ms. MacFarlane's evidence -- that Disco cannot borrow money without a big G Guarantee, and in fact all of the debt of Disco is guaranteed by a big G Guarantee.

6 Are you aware of that?

7 A. I'm aware that it's the case now. I believe that's the
8 case now. The creditworthiness of any enterprise that
9 serves a monopoly function like this one, it depended on
10 the ability of those who pay its bills to continue to do
11 so.

And it is not a difficult thing for a state -- it's not a particularly difficult thing for a state-owned enterprise to project the capital markets, that it has the

15 wherewithal to meet their obligations.

16 Q.172 - Well, that may be true, Dr. Makholm. But the fact of 17 the matter is, as it presently stands, the capital markets 18 don't appear to be in any great hurry to lend money to 19 Disco unless there is --

20 MR. HYSLOP: Objection. Objection to that. There is no 21 basis for that question that the capital markets alone are 22 prepared to lend money to Disco. I don't think that has 23 been established anywhere on the record, Mr. Chair. 24 Q.173 - Dr. Makholm, we have just gone through a series of 25 questions. And you would agree with me that all of the

1	- 5411 - Dr. Makholm - Cross by Mr. Morrison -
2	present debt of Disco is backstopped by a written big G
3	Guarantee?
4	A. I think that's the case at the moment, yes.
5	Q.174 - Now do you draw any conclusions from that as to what
6	capital markets how capital markets view lending money
7	to Disco?
8	A. In what respect?
9	Q.175 - Well, if all of the debt that Disco currently has on
10	its books is backstopped by a written big G Guarantee, all
11	of the debt, can you draw any conclusions as to the
12	attitude of the capital markets to lend money to Disco
13	without a big G Guarantee?
14	A. No. It just reflects that that's the way it has been done
15	to date.
16	Q.176 - Thank you. Okay. Dr. Makholm, I'm going to turn to
17	my prepared questions. And largely I will be sticking
18	with your report. And I would like to refer you to page
19	2.
20	A. Yes.
21	Q.177 - And at lines 19 and 20 there is just one sentence
22	there, Dr. Makholm. It says "First a response to the
23	position taken by company witness Kathleen McShane who
24	presents evidence on Disco's cost of capital including its
25	cost of equity. I also respond to the testimony of

1	- 5412 - Dr. Makholm - Cross by Mr. Morrison -
2	company witness Sharon MacFarlane who supports the company's
3	requested capital structure and cost rates."
4	Do you see that?
5	A. Yes.
6	Q.178 - Now you are aware, Dr. Makholm, that Disco isn't
7	asking this Board to rule on a deemed capital structure in
8	this proceeding?
9	A. I'm not sure I understand that question.
10	Q.179 - Is it your understanding that Disco is asking this
11	Board to make a ruling and deeming a capital structure for
12	Disco in this proceeding?
13	A. It's my understanding that the company has proposed rates
14	based on a capital structure different than what it
15	actually has, or what we might call a hypothetical capital
16	structure. Yes, that's my understanding.
17	Q.180 - Okay. And can you direct me anywhere in the evidence
18	where Disco is seeking asking this Board to deem a
19	capital structure?
20	And if you want to I'm sure we will have time over
21	lunch if you want to take that as an undertaking and
22	get back to me, that would be fine.
23	A. I would like to do that. That sounds like it could be a
24	trick question.

25 Q.181 - It is not a trick question, I can assure you.

1 - 5413 - Dr. Makholm - Cross by Mr. Morrison -2 Α. Okay. But I would be happy to take the time if you are 3 willing to give it. Q.182 - Now at page 3 of your report, Dr. Makholm, you refer 4 to the Newfoundland and Labrador decision? 5 6 A. Yes. Q.183 - And I think you, in response to some questions this 7 morning you brought up the Newfoundland and Labrador 8 9 decision as well, right? 10 A. Yes. Q.184 - And I think you rely on that decision as an example of 11 12 a regulator set the return based on the Province's cost of debt, is that fair? 13 A. Yes. 14 15 Q.185 - Okay. And I believe Mr. MacDougall asked you this morning whether you were aware of other jurisdictions that 16 17 came to a similar conclusion as you. And you referred to 18 the Newfoundland case. And that is fine. 19 Are you aware of any other regulators in Canada in the last 10 years that have followed the course that was 20 21 followed in the Newfoundland decision? A. I'm not aware. 22 23 Q.186 - And I would just like to turn to the quote that you have referred to from the Newfoundland decision. And it 24

essentially says -- and that is at page 3 -- and I think

1 - 5414 - Dr. Makholm - Cross by Mr. Morrison -2 the quote is on page 36 of the decision, although I don't have 3 the decision itself right in front of me. But if you look at page 3, would you agree with me, Dr. 4 Makholm, that the decision does not say that NHL will 5 never get a rate of return consistent with investor-owned 6 utility? 7 It does not have those words, no. 8 Α. 9 Q.187 - Well, let's look at the words a little bit. When I 10 read it it says that the Board finds insufficient justification at this time, is that fair? 11 12 Α. Yes. Q.188 - And essentially, and I'm paraphrasing here, basically 13 14 NHL did not demonstrate that it had a plan to achieve 15 financial targets similar to an investor-owned utility, correct? 16 17 Α. Well, it hadn't done a lot of things. And that was one of 18 them. 19 Q.189 - Yes. And the Board would treat it as a Crown-owned 20 utility with a debt guaranteed by the Province for that and other reasons, correct? 21 22 A. Correct. 23 Q.190 - And I will suggest to you, Dr. Makholm, that if Newfoundland Hydro had satisfied the Board that it had a 24

plan to achieve financial targets, the Board would have

25

- 5415 - Dr. Makholm - Cross by Mr. Morrison allowed an ROE that was similar to those of investor-owned
 utilities.

4 Would you agree with that?

I doubt that. And all you have to do is look at the 5 Α. No. Board's decision to see why that is so. The Board said on 6 7 page 36, that you just referred to, this is the Newfoundland Board, "The Board notes these differences 8 9 between NLH, Newfoundland and Labrador Hydro, and an 10 investor-owned utility will continue to apply with no evidence of change occurring in the foreseeable future." 11 12 So at the end of the day, despite what the Provincial-13 owned company was doing in terms of its own structure, the Board said they are not an investor-owned utility. 14 15 Q.191 - One of the big issues in that case, Dr. Makholm, was 16 the fact that Newfoundland didn't have a dividend policy,

17 Newfoundland Hydro didn't have a dividend policy.

18 I understand that was a fairly contentious issue in the 19 course of that proceeding?

20 A. I -- I'm not sure.

21 Q.192 - Were you a witness in that proceeding?

22 A. No.

23 Q.193 - And --

24 A. But a nearer witness was in that proceeding.

25 Q.194 - That is one of your associates, is that correct?

1	- 5416 - Dr. Makholm - Cross by Mr. Morrison -
2	A. One of my then associates. That's correct.
3	Q.195 - But it is my understanding that one of the reasons or
4	a big issue of contention is that, as is stated in this
5	reference in your evidence, that there was no long-term
6	financial plan and there was no dividend policy.
7	Are you familiar with the evidence that was given by Ms.
8	MacFarlane with respect to the dividend policy of Disco in
9	the shareholders' agreement?
10	A. In this case generally. Now when you refer to the
11	Newfoundland case, remember that those were only initial
12	requirements. Those were not necessary conditions to do
13	what Newfoundland and Labrador Hydro had asked for in that
14	case up in Newfoundland.
15	There were other issues that the Board held were important
16	as well. It just never had to get to them because the
17	initial conditions weren't even met. They may have been
18	necessary but certainly not sufficient to allow the Board
19	to give what Newfoundland and Labrador Hydro wanted.
20	Q.196 - Okay. But I would like to get back to my question
21	though, Dr. Makholm. And as I indicated earlier, it is my
22	understanding that one of the essential issues or at least
23	an important issue in that case was the fact that
24	Newfoundland Hydro had no dividend policy?

1 - 5417 - Dr. Makholm - Cross by Mr. Morrison -2 Α. It wasn't cental at all in my opinion. And I don't even 3 conclude it was particularly important, because --Q.197 - But you weren't a witness in that --4 No. But I participated in the case. And I was fully 5 Α. aware of what my colleague, Dr. Waverman, was doing in 6 that case. And the issue came down to more fundamentals 7 8 than that. 9 But that Board, like this or any other, if it has the 10 ability to -- strike that. I'm not going to talk about how boards come to decisions. That's not for me to talk 11 about. 12 Q.198 - Okay. I will get back to my question, Dr. Makholm. 13 14 Did you read any of the transcripts of Ms. MacFarlane's evidence where she set out the dividend policy of Disco? 15 16 A. Yes. 17 Q.199 - And you would agree with me that is a clear policy 18 that is set out in the shareholders' agreement? 19 Α. I know that it was discussed. Whether it's clear or not, 20 I can't judge. Q.200 - Okay. I want to turn to -- and I hope you have it in 21 22 front of you. It is responses to undertakings that were -23 - it is the Disco responses to undertakings, data request responses? 24

25

1 - 5418 - Dr. Makholm - Cross by Mr. Morrison -2 A. Yes. 3 MR. MORRISON: And I believe that is exhibit PI-16, Mr. Chairman. 4 CHAIRMAN: And what citation are you looking for, 5 Mr. Morrison? 6 MR. MORRISON: Pardon me? 7 CHAIRMAN: What are you looking for in PI-16? 8 9 MR. MORRISON: Disco response, PI Disco IR-1. 10 WITNESS: Yes. Q.201 - Do you have that in front of you, Dr. Makholm? 11 A. Yes. 12 13 Q.202 - And you were asked -- I will read the whole thing at 14 page 6. Dr. Makholm refers to Transco's equity infusion 15 by the Province. Does Dr. Makholm believe that the equity 16 infused into Transco by the Province warrants a return to 17 the equity shareholder that is commensurate with that allowed investor-owned utilities with similar business and 18 19 financial risks? Please explain why or why not. 20 And your response was the question asks about returns 21 warranted for the exposure to similar business and financial risks. However, Dr. Makholm's point is that 22 23 common stockholders in investor-owned utilities have

greater risks to which their capital is exposed than
provincial shareholders in provincial utilities where the

1 - 5419 - Dr. Makholm - Cross by Mr. Morrison -2 recovery of costs to serve the public lies in the hands of the 3 Province to structure utility rates to cover. Therefore, Dr. Makholm would not agree with the premise of the 4 question and hence cannot answer it yes or no. 5 6 So, Dr. Makholm, I guess fundamentally are you saying that the business risks to Crown-owned utilities are not the 7 same as those of investor-owned utilities? 8 9 Α. Correct. 10 Q.203 - Okay. And if I understand the response, that is because the recovery of costs to serve the public lies in 11 12 the hands of the Province to structure utility rates to 13 cover? Yes. 14 Α. Q.204 - And I think that goes to the issue we discussed a 15 little bit earlier, correct? 16 17 Α. I imagine it does. 18 Q.205 - But you are aware, Dr. Makholm, that it is this Board 19 that sets the rates, correct? 20 Α. Correct. Q.206 - And I believe you answered Mr. MacDougall on this 21 22 question. You would agree with me, Dr. Makholm, that it 23 is not uncommon for a regulator to impute or deem a capital structure for the purposes of ratemaking that is 24 25 different from a company's actual capital structure,

- 5420 - Dr. Makholm - Cross by Mr. Morrison correct?

3 Α. Well, there are two kinds of companies. For investorowned companies that happens once in awhile. It's not a 4 praiseworthy practice. It usually happens for investor-5 owned companies when there is -- the company is quite 6 7 outside the range of the average company, or there is a subsidiary of an investor-owned company that may have no 8 9 debt just because -- or may have no equity just because of 10 the internal organization of the investor-owned company. And in those cases regulators have been known to impute a 11 hypothetical capital structure. 12

Now for publicly-owned utilities the capital structure is in general not so large an issue. And it's not so large an issue for the reasons that we saw in Newfoundland, which is that the debt has an identifiable cost that you can look at in the accounting books. And equity that is owned by the Province also has an identifiable cost, the opportunity cost of the Province's equity.

And those two numbers in the Newfoundland case were quite close together. In fact the equity return was lower than the embedded -- the average embedded cost of debt. So it does happen on both sides of the fence, the publicly-owned and investor-owned side.

25

1 - 5421 - Dr. Makholm - Cross by Mr. Morrison -2 But it is a much bigger consequence for investor owners, 3 where the cost rates are quite different, equity versus debt, than it is for instance in Newfoundland where the 4 cost rates are not so different. 5 Q.207 - Okay. So I will get back to my question, Dr. Makholm. 6 Regulators do impute deemed capital structures? 7 They do. It's not common. And it's often reprehensible. 8 Α. 9 Q.208 - Well, look, I would like to turn to page 7 of your 10 evidence. It is right at the very bottom of page 7. It goes over to the top of page 8. And you are referring to 11 12 Professor Bonbright's text, sometimes referred to as the 13 Bible. 14 And you quote him as saying -- you are quoting Bonbright 15 here. And it says that "The use of hypothetical or 16 typical capitalization substitutes an estimate of what the 17 capital cost would be under nonexisting conditions for 18 what it actually is or soon will be under prevailing conditions", correct? 19 20 Α. Yes. Q.209 - And Professor Bonbright in that text goes on in the 21 very next sentence -- and I will just -- I believe I have 22 given you a copy of that. 23 No. You gave it to my counsel but not to me. 24 Α.

25

1 - 5422 - Dr. Makholm - Cross by Mr. Morrison -2 Q.210 - Sorry, Dr. Makholm. I will just repeat the question. 3 Basically you are quoting from Bonbright where he says indeed the use of a hypothetical or typical capital 4 structure -- or capitalization substitutes an estimate of 5 what the capital cost would be under nonexisting 6 conditions for what it actually is or soon will be under 7 prevailing conditions. 8

9 But Professor Bonbright goes on to say but if the existing 10 security structure is clearly unsound or is extravagantly 11 conservative, the rule must be modified in the public 12 interest. Do you see that?

13 A. Yes.

14 Q.211 - So would you agree with me, Dr. Makholm, that what 15 Bonbright is saying is that if the existing capital 16 structure is clearly unsound or extravagantly 17 conservative, then it is open for a regulator to 18 substitute a deemed capital structure?

That is what he is saying. But you have to put that in 19 Α. context as well. Think about the Newfoundland case. 20 21 Whether there was debt or equity in that case, retained earnings or not, had very little effect on consumer rates. 22 23 Because the cost rate applied to equity. It was very close to the cost rate that was applied to debt. 24 So 25 whether you had 13 percent equity in the capital structure - 5423 - Dr. Makholm - Cross by Mr. Morrison or 50, it would have very little effect.

3 What Professor Bonbright is talking about here in terms of extravagantly conservative, he is discussing issues that 4 are pertaining to investor-owned companies, where 100 5 percent equity would have a very high cost rate for a 6 company, an investor-owned company, probably because 7 equity is more expensive, probably because by employing no 8 9 debt such a utility would have no income tax deductions 10 that would serve to lower consumers' rates. It often happens often enough with investor-owned 11 12 companies that have very high equity capital structures. 13 The regulators know that the effect of those high equity structures on rates is biq. And they will, by hook or 14 15 crook, by some vehicle or other, will try to get the 16 utility to employ more debt in the capital structure

17 because it's cheaper for investor-owned ratepayers to 18 bear.

19 That discussion here -- most of Bonbright's discussion has 20 to do with investor-owned companies. And to the extent 21 that he is talking about extravagant conservativeness, he 22 would by definition be talking about investor-owned 23 companies. Because if he is talking about public-owned 24 companies it's just not that big a deal.

25 Q.212 - Thank you, Dr. Makholm. That is not the question I

1 - 5424 - Dr. Makholm - Cross by Mr. Morrison asked you. But I will get to my question. 2 3 A. Sorry. Q.213 - Would you agree with me that when Professor Bonbright 4 is talking about a capital structure that -- and whether 5 it is investor-owned or not investor-owned --6 Means everything of course. 7 Α. Q.214 - Well, that is not the focus of my question, Dr. 8 9 Makholm. 10 A. I understand it. Q.215 - What he is saying is that if a capital structure is 11 unsound then it would be open to a regulator to impute the 12 13 deemed capital structure. Essentially that is what he is saying, correct? 14 15 A. Correct. Q.216 - And what he is describing is what I would characterize 16 17 as a continuum. If you have an extravagantly conservative 18 capital structure, I think as you have just mentioned, 19 that would be one that would be 100 percent equity, 20 correct? For an investor-owned utility. 21 Α. Q.217 - For an investor-owned utility, that would be 100 22 23 percent equity. That, according to Bonbright, would be unsound because it is extravagantly conservative, correct? 24

25 A. I think that would be a candidate for what he would

1 - 5425 - Dr. Makholm - Cross by Mr. Morrison -2 call, not in perhaps every instance, but certainly there are 3 instances where I could see him calling that extravagantly 4 conservative. Q.218 - And one that is clearly unsound would be one that 5 would be 100 percent debt, correct? 6 Well -- and really it's unsound because the rates would be 7 Α. 8 high. Now 100 percent debt for an investor-owned company 9 doesn't make much sense. Because you can't cover debt, 10 the 100 percent debt. And a rule of thumb in the business of financing utilities 11 is that any business that is 100 percent debt means that 12 13 the debtholders magically become shareholders. 14 Because you can't sustain interest payments with only debt 15 unless you can move prices every minute of the day to cover interest. So 100 percent debt is not really an 16 17 achievable point to --18 Q.219 - But you would agree with me that the continuum that he 19 is talking about is extravagantly conservative which is 20 100 percent equity and unsound, clearly unsound by his 21 words, which would be 100 percent debt, correct? Which would be lots of debt, lots of debt, more debt than 22 Α. the market would allow you to hold given the earnings-23 generating ability of the enterprise. 24 25 Q.220 - So you would agree with me that Professor Bonbright

1 - 5426 - Dr. Makholm - Cross by Mr. Morrison -2 would conclude that a capital structure that was 100 percent debt would be clearly unsound, correct? 3 Only for an investor-owned company, not for a publicly-Α. 4 owned company. 5 Q.221 - So what you are saying then, if I'm following you 6 correctly, Dr. Makholm, is that a capital structure that 7 may be unsound for an investor-owned utility is not 8 9 unsound for a Crown utility? Is that the essence of what 10 you are saying? A. Yes, with respect to what we are going through here, 11 that's precisely what I'm saying. 12 13 Q.222 - Now you are aware that this Board approved a deemed capital structure for Transco in the March 2003 Open 14 Access Transmission Tariff --15 16 A. Yes. 17 Q.223 - -- hearings? And it awarded Transco a return on 18 equity of 9.5 percent? I believe that's correct. I haven't reviewed the 19 Α. decision. 20 Q.224 - And at the time that the Board approved the deemed 21 capital structure and return on equity for Transco, 22 Transco was a Crown-owned utility with 100 percent debt. 23 24 You are aware of that? 25 A. Yes.

1 - 5427 - Dr. Makholm - Cross by Mr. Morrison -2 Q.225 - So if I'm following you, are you saying that the Board 3 was incorrect in doing that? I don't know. And I say I don't know for two reasons. Α. 4 One, I wasn't here or involved or have reviewed the 5 transcript in the case. I don't know the extent to which 6 7 the Board grasped this issue with the same tenacity as it is in this case. I just don't know. 8 9 In a certain respect you could conclude that my 10 principles, as I have stated them here, might lead me to inconsistency with the Board's decision in that case. But 11 I simply don't know what was before the Board then. 12 Q.226 - Some of us do. And I would ask you to turn to page 16 13 14 of your evidence, Dr. Makholm. MR. HYSLOP: Mr. Morrison, could you repeat the reference, 15 16 please? 17 MR. MORRISON: Yes. It's page 16, beginning at line 15. 18 Q.227 - Do you have that in front of you, Dr. Makholm? 19 A. Yes, I do. Thank you. 20 Q.228 - And there you say Ms. McShane states further that 21 objectives of the province include -- and I am quoting --"the establishment of the foundation for NB Power to be 22 able to earn a commercial return on behalf of the 23 shareholder from which dividends which will be paid." I 24 25 disagree with her point of view here as well. Do you see

1 - 5428 - Dr. Makholm - Cross by Mr. Morrison -2 that? Α. 3 Yes. Q.229 - And you were asked an IR on that, Dr. Makholm. 4 And it's -- it would be the response to IR-8, Mr. Chairman, in 5 6 the same exhibit? Starting, please -- no, that's not the one. 7 Α. Q.230 - Do you see that rebuttal testimony of Jeff D. Makholm, 8 9 Ph.D., IR-8 starts at question page 17 of his testimony 10 Dr. Makholm says? It's IR number 8, sir? A. Oh, okay. 11 Q.231 - Disco IR-8? 12 13 A. Okay. Yes. I have it. Q.232 - And the question that was put to you with respect to 14 15 that quote that I just made is, does Dr. Makholm disagree 16 that the objectives cited by Ms. McShane were set by the 17 Province? And the answer is, Dr. Makholm should clarify 18 that to the extent that Ms. McShane is merely restating 19 objectives voiced by the Province and not her own opinion at that point in her testimony, then there is nothing for 20 21 him to agree or disagree with. That's your response to that question, Dr. Makholm? 22 Yes. 23 Α.

Q.233 - So I just want to be clear that I understand here. Do
you agree that the objectives of the Province include the

1 - 5429 - Dr. Makholm - Cross by Mr. Morrison -2 establishment of a foundation for NB Power to earn a commercial return on behalf of the shareholder from which 3 dividends will be paid? 4 I don't think I can disagree that the Province in some 5 Α. way has said that. It's not in the legislation. It's not 6 7 in the Act. But it may be in the White Paper that I haven't looked at. I can't disagree that they have said 8 9 such a thing. 10 Q.234 - I have provided your counsel with a copy of some documents this morning, Dr. Makholm. And I am going to 11 12 have one document in particular marked and then I will ask 13 you some questions about. It's the document that's been 14 referred to several times throughout the course of this 15 proceeding and it's never been marked as an exhibit. And 16 it's the Minister's statement on the future of NB Power 17 delivered by Jean Volpe, Fredericton, May 30th 2002. And this is on the introduction in the House of the 18 19 Electricity Act. MR. HYSLOP: Mr. Chair, I know this has been referenced. 20 21 But I would think that the Electricity Act speaks for 22 itself. And I am not quite sure the extent that this is 23 an unsworn document of a Minister can be accepted in the

evidence if unsworn testimony of the President of NB Powerbefore the Crown Corporations Committee can be objected to

1 - 5430 - Dr. Makholm - Cross by Mr. Morrison -2 and left out of the evidence. I have -- my point is at the 3 end of the day, what we have to deal with here is the legislation and not statements as to the purpose or intent 4 of the legislation or what they thought it means or what 5 it doesn't think it means. It's what the Board thinks the 6 7 legislation means. And I think in the circumstances, I may want to make some reference to it. But whether it 8 9 becomes a document in part of these proceedings, I think I 10 take objection. MR. MORRISON: Mr. Chairman, it's not necessary for me to 11 12 introduce it as an exhibit. I will just put the 13 statements to the witness and cross examine him in the 14 normal fashion if that's the case. I have no --15 I take that to be that you withdraw the request CHAIRMAN: for putting it in as an exhibit. So I don't have to rule? 16 17 MR. MORRISON: You do not have to rule, Mr. Chairman. That is now the Minister of Finance. And frankly 18 CHAIRMAN: 19 I agree with the Public Intervenor that what a Minister 20 has to say can change as quickly as the complexion on the 21 It's not government policy, in other words. It beans. may be some indication of his intent in holding that 22 portfolio, but anyway you can go ahead and refer to it. 23 MR. MORRISON: No, that's fine, Mr. Chairman. 24 25 Q.235 - Dr. Makholm, would you agree with me that the

1 - 5431 - Dr. Makholm - Cross by Mr. Morrison -2 Electricity Act is an expression of government policy? 3 A. Yes. 4 CHAIRMAN: Shall we take our luncheon break now, Mr. Morrison, before you start another line? 5 6 MR. MORRISON: That's fine, Mr. Chairman. CHAIRMAN: We will reconvene at 1:15. 7 (Recess - 12:00 p.m. - 1:15 p.m.) 8 9 CHAIRMAN: Good afternoon, ladies and gentlemen. Any 10 preliminary matters? Mr. Hyslop? MR. HYSLOP: Thank you, Mr. Chair. This morning my 11 colleague Mr. Morrison asked a question to Dr. Makholm to 12 13 the effect that -- it was respecting the evidence in 14 support of the Province where it asked for or was seeking 15 out an implied rate of return and deemed equity of -deemed equity structure. In response to the undertaking 16 17 we have found some references in the evidence and I would 18 ask Dr. Makholm to comment. There are two items. One from Kathleen McShane's 19 WITNESS: opinion and one from the direct evidence of Sharon 20 21 MacFarlane. In the -- exhibit A-55, it's April 4, number 22 1, Ms. McShane says, I was requested by New Brunswick Disco to review their approach to determine the requested 23 net income in their application for 2006/2007 rates. 24 She 25 goes on to say in the next paragraph, the basis for

- 5432 - Dr. Makholm - Cross by Mr. Morrison Disco's requested net income is described in the evidence of
Ms. Sharon MacFarlane. Briefly, the requested net income
was derived -- that's subjunctively put, but I presume
that she meant -- Ms. MacFarlane derived it from the
required return on capital for a stand alone distribution
utility.

8 The stand alone required return on capital used to derive 9 net income is comprised of a capital structure containing 10 52.5 percent debt and 42.5 percent equity and a return on 11 equity of 10 percent.

12 That was Ms. McShane saying how Ms. MacFarlane created the 13 income stream.

Turning to exhibit A-50, tab 3, sub tab evidence of Sharon 14 15 MacFarlane, pages 10 through 12. She says, with advice 16 from the Province's financial advisors it was determined 17 that a capital structure comprised of 57.5 percent debt 18 and 42.5 percent equity which is within the range of 19 capital structures maintained by other electricity distribution utilities in Canada would meet these two 20 21 objectives.

The proposed net income was then derived by estimating the return on capital that would be required by Disco at a deemed capital structure containing 57.5 percent debt and 42.5 percent equity with a fair return allowed on the - 5433 - Dr. Makholm - Cross by Mr. Morrison 2 equity component.

Based on the advice of the Province's financial advisors a 3 return on equity of 10 percent was determined to be 4 responsible for Disco in light of capital market 5 conditions, a selected 57.5 percent/42.5 percent 6 7 debt/equity capital structure and Disco's business risks, in particular the sensitivity of earnings levels to 8 9 variations in purchase power expense. 10 What that means -- the subjunctive bit notwithstanding, what that says to me is that they have structured their 11 12 income stream around this capital structure and cost 13 Hence the income stream that they have requested rates.

14 has these -- has this capital structure and those cost

15 rates embedded in it, and improving the income stream, 16 which is in your jurisdiction to do or not do, approves 17 those capital structure components and cost rates. One

18 leads right to the other.

19 The income stream doesn't come from nowhere, it comes from 20 a procedure. And if you approve the income stream you 21 approve the procedure.

22 MR. HYSLOP: Thank you, Dr. Makholm.

WITNESS: That's why I thought it was a trick question.
Q.236 - Thank you, Mr. Chairman. Thank you, Dr. Makholm. Now
before lunch you stated that the use of a hypothetical or

1	- 5434 - Dr. Makholm - Cross by Mr. Morrison -
2	a deemed capital structure for investor owned utilities is
3	relatively uncommon?
4	A. Yes.
5	Q.237 - Well, Dr. Makholm, are you aware that in Nova Scotia
6	for example, Nova Scotia Power has a deemed capital
7	structure and is investor owned?
8	A. I don't know.
9	Q.238 - In Quebec, Gas Metro, in Ontario, Union Gas and
10	Enbridge Gas, Alberta, Alberta Link, Fortess Electric and
11	Atco Electric, British Columbia, Terasen Gas, National
12	Energy Board, federal level TransCanada Pipelines, all
13	investor owned utilities, all with a deemed capital
14	structure?
15	A. Well that wouldn't surprise me a bit.
16	Q.239 - Okay. We were talking a little bit before lunch, Dr.
17	Makholm, about the ability of Disco to go out and raise
18	capital without a formal big G Guarantee. Are you aware
19	of any precedents in Canada of a Crown owned utility with
20	100 percent debt that has been able to raise debt
21	financing in the capital markets without a formal big G
22	government Guarantee?
23	A. I haven't studied the issue. I don't know. But I will
24	offer that the company I referred to previously, Santee

25 Cooper in South Carolina, does not have a big G

1 - 5435 - Dr. Makholm - Cross by Mr. Morrison -2 Guarantee and it raises money. 3 Q.240 - That isn't in Canada though, Dr. Makholm. Well that's well put. That's not in Canada. But I have 4 Α. not studied the issue in Canada. 5 Q.241 - Assuming that it was possible for Disco or a Crown 6 owned, State owned utility, to go out and borrow money 7 without -- as you say, with only the small g guarantee, 8 9 would that not affect the Province's credit rating? 10 Α. I don't see why it necessarily would do so. Q.242 - You wouldn't think -- and I'm asking your opinion on 11 12 this, Dr. Makholm -- that if Disco incurred debt in the 13 capital markets, and if I understand your evidence you 14 would -- it's your view that Disco could raise debt on the 15 capital markets with this implicit or small g quarantee, 16 that those borrowings would not affect the Province's 17 credit rating? 18 I don't see why they would. Α. 19 Q.243 - Okay. Now we talked a little bit this morning about 20 the OATT decision, the open access transmission tariff 21 decision. And you will recall that the Board approved the 22 capital structure for Transco even though it was 100

percent debt owned and debt financed, and we went through that this morning. And are you aware, Dr. Makholm, that both Transco and Disco were created under the same piece

1 - 5436 - Dr. Makholm - Cross by Mr. Morrison -2 of legislation, namely Section 4 of the Electricity Act? 3 Α. I have issue with the premise of your company. You said that Transco is 100 percent debt financed. It's my 4 understanding that in and about the time this Board made 5 its decision that \$140 million dollars was taken out of 6 debt and specified as equity for Transco. 7 Q.244 - With all due respect, Dr. Makholm, that is not 8 9 correct. At the time that the Board approved the deemed 10 capital structure for Transco it was 100 percent debt financed Crown owned utility. 11 12 But anyway, getting back --13 If I could, Mr. Morrison, am I correct in saying CHAIRMAN: however the Board was informed that what did ensue was 14 15 going to happen before we delivered that decision. 16 MR. MORRISON: That's correct. There was evidence to the 17 effect of what was going to transpire in the future with the proclamation of the Electricity Act, but you will 18 recall that the act had not been proclaimed at that time. 19 No. And it was halfway through that hearing 20 CHAIRMAN: before it was even tabled in the house. 21 22 MR. MORRISON: That's correct. 23 CHAIRMAN: It was a bad time, Doctor, believe me. Anyway, I

just want to put that on the record, Mr. Morrison.

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25 MR. MORRISON: No, I understand, Mr. Chairman.

1 5437 - Dr. Makholm - Cross by Mr. Morrison -2 Q.245 - But you are aware that both Transco and Disco were 3 created by the same statute, Section 4 of the Electricity Act, correct? 4 A. Yes. 5 Q.246 - And if you can turn to page 10 of the OATT decision, I 6 believe you have a copy of it in front of you. It's just 7 8 \_ \_ 9 Α. You gave one to me? 10 Q.247 - I believe my associate did, yes. It's two pages stapled together. That's it. 11 Starting with the word, "lender's risk"? 12 Α. 13 Q.248 - That's correct. If you would go down to the last 14 paragraph before the heading "Finance Charges"? 15 Α. Yes. Q.249 - And I will read this to you, Dr Makholm, and this is 16 17 what the Board's ruling says. Transco will be a separate 18 legal company required to raise financing on the capital markets and requires an appropriate debt to equity ratio. 19 The Board considers that the minimum percentage for 20 21 equity should be 35 percent and therefore approves the capital structure of 65 percent debt and 35 percent 22 23 equity. You see that? Yes. 24 Α.

25 Q.250 - And you are aware that Ms. MacFarlane gave evidence in

1 - 5438 - Dr. Makholm - Cross by Mr. Morrison -2 this proceeding setting out what is going to happen with Disco 3 in terms of going to the capital markets? Are you aware of that? 4 5 Α. Generally, yes. Q.251 - So why should Disco be treated any differently than 6 7 Transco? I'm not sure -- that's a very broad question. Why should 8 Α. 9 Disco be treated any differently than Transco? If -- I 10 don't know how to answer that question, because I'm not sure all of the reasons why or what happened in that 11 Transco case. I just haven't been through it. If you 12 13 want me to leave it at that I would be happy to. Q.252 - That's fine. That's fair enough. Now we had a 14 15 discussion this morning and I believe you stated in 16 response to an IR and I asked you some questions on it 17 this morning, that you believe that the risks faced by the 18 Crown owned utility are different from those faced by investor owned utilities. I think that's fundamental to 19 20 what you are saying, correct? Well it has nothing to do with the basis for my beliefs. 21 Α. I mean this is what I conclude having spent 20 or 25 years 22 dealing with the financing for public or privately owned 23 utilities. 24

25 Q.253 - So it's your view, Dr. Makholm, that a comparison of

- 5439 - Dr. Makholm - Cross by Mr. Morrison risks of the two is not appropriate for purposes of
establishing a rate of return. In other words, comparing
the risks of a Crown owned utility versus an investor
owned utility is not appropriate for making a
consideration of a rate of return?

7 A. I didn't say that.

Q.254 - Okay. Can you comment on it? Is it appropriate to --8 9 Α. Of course it's appropriate. But they are fundamentally 10 different risks. Investor owners are a separate entity from the state. And a state utility in the broadest sense 11 12 is not. And there are many things that can get between an 13 investor owner who puts his money for the use of the public and the return that that investor owner is going to 14 15 get on that asset. Inflation could take it away from him, 16 imprudence can take it away from him, the market could do 17 something to remove the value of that asset in a way that regulated tariffs and wont recover. There are many 18 19 different ways in which an investor owner can find him or herself incapable of collecting the money back that they 20 21 put to the use of the public. That's why investor owners 22 require an investor required return, to put their capital at the use of the public. That whole generic -- that 23 whole genus of risk doesn't exist for a state owned 24 25 entity. The idea that somehow in the workings

1 - 5440 - Dr. Makholm - Cross by Mr. Morrison -2 of the state there can be a barrier between utility ratepayers 3 and private equity investors is not a source of risk to the company that is a state owned enterprise. Those are 4 fundamentally different sources of risk. You can compare 5 them all you want, but they are different. And to the 6 7 extent that people in this case have implied it's the same just because they are both serving customers is a fallacy. 8 9 They are not the same.

10 Q.255 - Well, Dr. Makholm, I know that you have stated just a few minutes ago that you haven't read the OATT decision, 11 and I put an excerpt from page 18 of the decision, but I 12 13 will put it to you that when this Board approved the deemed capital structure for Transco, it spent a great 14 15 deal of time comparing Transco to investor owned utilities in determining the capital structure. Do you think that 16 17 was appropriate or inappropriate to do?

18 Α. I said before I think in response to one of your 19 questions, that viewed in terms of the application of the principles I have used to provide evidence in this case, 20 21 one could conclude that there is inconsistency in the 22 principles in the way I have described them and what went 23 on in that Transco case. But I'm not willing to say that it is an inconsistency in fact because I wasn't in this 24 25 case -- I wasn't in that case, and I have not examined

1 - 5441 - Dr. Makholm - Cross by Mr. Morrison -2 that case record. Q.256 - Fair enough. Now, Dr. Makholm, I have provided you 3 4 with a couple of articles. I am just going to refer briefly to a couple of quotes. The first is a document, 5 it's a policy paper prepared by an Andrew Kosnaski dealing 6 7 - -I know Mr. Kosnaski. 8 Α. 9 Q.257 - You know Mr. Kosnaski? 10 Α. Yes. Q.258 - Okay. And Mr. Kosnaski wrote a report called Hydro 11 12 One should pay market rates for its capital. And I have 13 provided you with a copy of that. Do you have that in 14 front of you? 15 Α. Yes. Q.259 - And I have highlighted some areas of that article for 16 17 you, Dr. Makholm. 18 Α. Well you have highlighted some areas of this that you have 19 given me, but you should not I think characterize it as an 20 article as if it were a disinterested piece of academic 21 work or something that had been subject to peer review. This is an opinion piece by Mr. Kosnaski. It's not an 22 23 article as such. Q.260 - Okay. 24

25 A. We will call it that.

1 - 5442 - Dr. Makholm - Cross by Mr. Morrison -2 Q.261 - It will be given whatever weight the Board feels it 3 should be given. Α. Okay. 4 Q.262 - I'm going to ask you to read the highlighted portion 5 6 on the first page. "Because the cost of equity will affect Hydro One's 7 Okay. Α. 8 revenue requirements and therefore the price it will 9 charge customers, it is important that the OEB allow a 10 return on equity that reflects the true opportunity costs of Hydro One's major equity investor, the Ontario 11 government. An overstated cost of equity translates into 12 13 rates that are higher than they need be, which gives a windfall to taxpayers in general at the expense of Hydro 14 15 One's ratepayers." Q.263 - Do you agree with that statement? 16 17 A. Yes. 18 Q.264 - Thank you. And if you turn to page 57, and I have a 19 highlighted portion. And could you read the highlighted 20 portion, please, Dr. Makholm? "A rate of return that is below the market cost of capital 21 Α.

22 on investments of similar size and risk will lead to the 23 unintended subsidization of electricity ratepayers by 24 Ontario taxpayers, and if the rate of return is used to 25 guide Hydro One investment decisions, too low a cost of

1 - 5443 - Dr. Makholm - Cross by Mr. Morrison -2 capital will also lead to too much investment in electricity 3 generation, transmission and distribution relative to other investments that could be financed with the capital 4 Hydro One uses." 5 Q.265 - And similarly, Dr. Makholm, would you agree with that 6 statement? 7 I think that statement is a bit vague, and for two 8 Α. No. 9 reasons. One, he uses the term similar size and risk. 10 That's loose usage. We have seen in this case I have objected to terms like similar size and risk as if 11 investor owned sources or public owned sources of capital 12 don't matter. They do matter. It means everything. 13 So to the extent that Mr. Kosnasky's sentence is premised on 14 15 similar size and risk in terms of utility operations and what they do, rather than the source of the capital, then 16 17 I think his statement is confused. 18 The second part of his statement talks about electricity -19 - Hydro One -- relative to other investments that could be 20 financed with the capital Hydro One uses, in this opinion 21 piece he said in the antepenultimate preceding paragraph that were it to sell its stake in Hydro One and invest the 22 23 proceeds in the market where a 15 percent return is earned, taxpayers would be better off in the amount of --24

and then he goes on to give an amount,

1 - 5444 - Dr. Makholm - Cross by Mr. Morrison -2 which is to say that he is postulating in this opinion piece 3 that the government could be better off if it sold its investment in Hydro One and bought shares in the stock 4 I think that is also a confused comparison. 5 market. The opportunity cost of capital for a state is -- or a 6 province -- is the price at which it can obtain funds from 7 the market. It's not the opportunity forgone by not 8 9 investing the state's money in the stock market. That's a 10 confused comparison. And hence I think when Mr. Kosnaski gets back in his paper, I think he runs out of steam. 11 Q.266 - Would you agree that what Mr. Kosnaski is dealing with 12 13 there, Dr. Makholm, is cost of capital should be priced so 14 that capital is used efficiently? 15 That is perhaps a broad perspective. I rather agree with Α. 16 where he started which is that we should compensate the 17 provider of capital for that provider's opportunity cost, 18 which is exactly my opinion in this case. Q.267 - Okay. Dr. Makholm, I have given you another quote and 19 it's actually just an interview with the former Minister 20 of Finance for New Zealand. Do you see that? 21 22 Yes. Α. Q.268 - And I have highlighted a portion of that interview. 23 Yes. 24 Α.

25 Q.269 - I am going to read it to you, and the question was, do

1 - 5445 - Dr. Makholm - Cross by Mr. Morrison -2 New Zealand Public Services include GST, taxes and the cost of 3 capital in their pricing? There are many here who believe that these costs can be avoided through government 4 ownership. Is this a fallacy? And the response was, yes, 5 they do. It is a fallacy because capital is capital 6 7 whether the Crown owns it or whether the private sector owns it. And unless you have a proper rate of return on 8 9 your capital you are squandering resources and capital is 10 scarce. It has to be allocated and the rate of return is a way of ensuring that you ration capital to the best 11 12 If the Crown excuses itself from a capital charge, uses. 13 then effectively you are biasing the market in favour of the Crown at the expense of the taxpayer and ultimately at 14 15 the expense of the consumer. You are short-changing yourself. Do you agree with that statement? 16 17 Α. She and I agree completely. And if you look -- I don't 18 know why you are reading me this because it doesn't do 19 your case any good. What I am saying here is that you 20 ought to have a capital charge reflective of the 21 opportunity cost of the province's capital. Capital is capital. A hundred million is a hundred million, whether 22 23 the hundred million comes from investor owners or from public owners. But what is the cost of maintaining that 24 25 hundred million? The cost for a public owner is the

1 - 5446 - Dr. Makholm - Cross by Mr. Morrison -2 opportunity cost of that hundred million, expressed in 3 percentage terms it's smaller than the opportunity cost of that hundred million provided by investor owners. So she 4 -- and the New Zealand treasury is a former client of 5 mine, I understand where they were coming from very well -6 - she is saying that money is money. But what she is not 7 saying is that the opportunity cost of capital for 8 9 investors is the same as that for public owners. She does 10 not say that in this quote. All she is saying is that you ought to provide the owners of the capital an opportunity 11 cost for providing the capital for the public service, 12 13 otherwise you have failed to compensate them their due proceeds. 14 Q.270 - But she does say that because capital is capital 15 16 whether the Crown owns it or whether it is owned by the 17 private sector, you would agree with that? 18 Α. That's like saying money is money. The issue is not that 19 there is money there, it's at what cost that it's used for the public. I think we are consistent, she and I. 20 Q.271 - Now, Dr. Makholm, attached to your IR response -- and 21 I don't think anybody has to turn this up you -- it was a 22 response to a Disco IR. And it wasn't clear to me which 23 Disco IR it was attached to. But you attached a copy of 24

25

1	- 5447 - Dr. Makholm - Cross by Mr. Morrison -
2	the May 22nd 1991 decision of the Board?
3	A. Yes.
4	Q.272 - And you referred to page 73 where the Board stated
5	that the existing capital structure, 100 percent debt
6	should be used and not the market-related cost of equity,
7	correct?
8	A. Yes. Although if you would tell me the IR, I would be
9	more comfortable in actually examining that for myself.
10	Q.273 - Well, I can give you a copy of the excerpt that was
11	provided. Because it isn't clear which IR it was attached
12	to, when I received it at least.
13	A. Okay. I have got the May 22nd 1991 decision in front of
14	me, including relevant pages 73 and 74.
15	Q.274 - Right. And that is what was provided in response to
16	an undertaking?
17	A. Correct.
18	Q.275 - And essentially I think you were referring to that or
19	it was attached to your IR response. Because the Board at
20	that time concluded that it concluded that the existing
21	capital structure, which at that time was 100 percent
22	debt, should be used and not market-related cost of equity
23	in setting the rate of return, correct?
24	A. It says the actual capital structure that the company
25	projects will exist in the future test period.

1 - 5448 - Dr. Makholm - Cross by Mr. Morrison -2 Q.276 - And then that was in 1991, correct? 3 A. Yes. Q.277 - And if you refer to page 76 of that decision. I think 4 I provided you with a copy of that? 5 A. I have only got --6 Q.278 - It is in smaller print. 7 8 CHAIRMAN: Mr. Morrison, in 1991 then NB Power Corporation 9 actually had some equity. You just said it was 100 10 percent financed by debt. MR. MORRISON: I believe I was quoting from the excerpt, 11 Mr. Chairman. But I will double check that. 12 13 The point is -- whether there was some equity there or not isn't the point. The point that the Board made is that it 14 15 should be based on its actual capital structure. WITNESS: I don't have page 76. I myself provided 73 and 16 17 '4. But I don't have the next one. 18 MR. HYSLOP: Which decision was that from, Mr. Morrison? MR. MORRISON: That was the May 22nd 1991 decision. 19 MR. HYSLOP: Rate decision? 20 21 MR. MORRISON: Yes. WITNESS: And you highlighted a sentence that says, on page 22 23 76, the Board considers that the determination of a 24 suitable rate of return must take into consideration the

25 specific circumstances of NB Power.

1 - 5449 - Dr. Makholm - Cross by Mr. Morrison -2 Q.279 - Right. And I think it is important, Dr. Makholm, and 3 the point I'm getting to is that when the Board made its decision it was considering the circumstances of NB Power 4 at that time, correct? 5 6 A. Certainly. Q.280 - And since 1991 you would agree with me that there have 7 8 been significant changes at NB Power. And you have had 9 the -- energy policy has been introduced, the Electricity 10 Act proclaimed and the utility has been restructured. Would you consider those to be significant changes in 11 circumstances? 12 13 It depends on your definition of significant. By that I Α. 14 mean to say, not to quibble, but certainly that a new law 15 is important. That is always a material change in 16 circumstances. The restructuring of the company may or 17 may not be material. 18 As far as I understand they are all still in the same 19 spot. They are not really separated from one another. 20 They all deal with each other on a day-to-day basis. That 21 may not be material. Anybody looking into the company from the outside may 22 23 think that they are the same old company they were in

24 1991. I don't know how you would tell the difference.

25 Q.281 - Well, the Act says that it is an independent company,

1 - 5450 - Dr. Makholm - Cross by Mr. Morrison -2 Dr. Makholm? 3 Α. Like I said, looking at what the company does, where it sits, how they deal with each other, you may not conclude 4 anything has happened, paper restructuring or not. 5 Q.282 - I'm going to refer to page 23 of your report? 6 7 A. Yes. Q.283 - And specifically lines 8 to 10? 8 9 Α. Yes. 10 Q.284 - And you talk about institutional arrangements, putting such institutional arrangements in place would be a 11 12 necessary step if Disco is to move away from the current 13 status as Crown corporations with guaranteed debt, et 14 cetera, et cetera. Now when you are talking about these institutional 15 16 arrangements, are these institutional arrangements the 17 covenants that you would find in bonds for example? 18 Α. They may be. They may be as simple as designing a margin, like the case that I spoke to earlier, with another 19 contemporaneous client of mine, the state-owned Santee 20 21 Cooper company that built at a 6 percent margin and calls it a capital improvement fund, keeps the money for the 22 23 benefit of ratepayers, has the Board of that company 24 specifically control those funds for the benefit of

1 - 5451 - Dr. Makholm - Cross by Mr. Morrison -2 ratepayers, but has a cash account that is there to more 3 easily pay dividend -- excuse me, to more easily pay interest when interest comes due. 4 Q.285 - Okay. So that is an institutional arrangement that 5 was approved by a regulator? 6 A. Correct. The regulator being the board that oversees 7 Santee Cooper, correct. 8 9 Q.286 - Correct. So if the Board imposes or sets out some 10 certain return parameters, that would be an institutional 11 arrangement? It could be. But it's not something to be done vaguely. 12 Α. Q.287 - No, no. I'm just asking --13 A. Right. 14 Q.288 - I'm just trying to get a definition of what you mean 15 by institutional arrangement? 16 17 Α. Yes. An example was the one I gave you. And an example 18 would be the one you gave. But not the one that the 19 company has proposed here. The difference being if you wanted to make it explicit, so 20 21 that money raised from ratepayers would be used and overseen by this Board to go to the benefit of ratepayers, 22 and it was specific that that were so, that would be an 23 institutional arrangement of the type I'm 24

1 - 5452 - Dr. Makholm - Cross by Mr. Morrison -2 talking about. Q.289 - Okay. I'm just trying to narrow down what you mean by 3 4 institutional arrangements, Dr. Makholm. So an institutional arrangement is one that you referred 5 to approved by the regulator for -- what is it, South 6 Carolina? 7 A. In South Carolina. 8 9 Q.290 - In South Carolina. Another institutional arrangement 10 is the covenants that would be in a bond, for example Underwood Institute --11 A. Correct. 12 Q.291 - -- issue? 13 14 A. Yes. 15 Q.292 - Are there any other institutional arrangements that --It is that type of arrangement I was speaking about, one 16 Α. that ties the income from consumer rates to the operation 17 18 of the services that provides benefits to ratepayers. 19 Q.293 - Okay. I understand what you mean by a regulatory 20 institutional arrangement. Then when we get down to a 21 question of institutional arrangements for bondholders for example, these are covenants that would normally be found 22 in debt instruments issued by the lender? 23 24 A. Yes.

1 - 5453 - Dr. Makholm - Cross by Mr. Morrison -2 Q.294 - So would you agree with me, Dr. Makholm, that if you 3 were looking at an institutional arrangement that was issued by a bondholder, that you would first have to be 4 able to go out and borrow in the bond market? 5 Yes. Realizing of course that the ability to borrow is 6 Α. 7 contingent upon wise institutional arrangements to assure the lender that he or she will get his or her money back. 8 9 MR. MORRISON: Mr. Chairman, if I can just take a couple of 10 minutes. We don't have to break. But I will just check 11 my notes. CHAIRMAN: By all means. 12 13 MR. MORRISON: I apologize, Mr. Chairman. I have gotten a couple of questions out of the way. 14 15 Q.295 - Dr. Makholm, you talked about the six percent 16 institutional arrangement that was implemented in South 17 Carolina? 18 Yes. As an example. Α. Q.296 - Okay. And what kind of dollars would that translate 19 20 into for Disco for example? A six percent margin on revenues, I'm not sure. But if 21 Α. 22 the capital structure is 537 million and you take a return on that of say 6. -- let's say six-and-a-half percent, and 23 24 then you add to that the operating cost of

1 - 5454 - Dr. Makholm - Cross by Mr. Morrison -2 the enterprise, the -- to determine the yearly revenue 3 requirement inclusive of all operating and capital costs, 4 take a percentage of that and that would be analogous to the six-and-a-half percent that I'm talking about in South 5 Carolina. 6 Q.297 - If you could turn to page 5 of your report. 7 Ιt relates -- I think you corrected your evidence this 8 9 morning, it's page 5, line 8 --10 Α. Page 5, line 8. Yes. Q.298 - And that's where you said this morning -- you changed 11 12 that so it's actual cost of capital is no -- originally read no less than 6.9 percent --13 14 Α. Yes. 15 Q.299 - -- but now it's to read no more or no less than 6.9 percent? 16 17 Α. No. Actually there it just says cost of capital of 6.29 18 percent. Q.300 - So that wasn't corrected? 19 Yes. I corrected that. I just dropped the words no less 20 Α. 21 than. Q.301 - So that 6.9 -- so that 6.29 percent that you are 22 23 talking about, that wouldn't allow any cushion for Disco, would it, if it was no more or no less than 6.29 percent? 24 25 A. Cushion for Disco, no. If by cushion you mean is

1 - 5455 - Dr. Makholm - Cross by Mr. Morrison -2 there any coverage that's greater than one in this case, the 3 answer is no. Q.302 - That's what I mean. And if you turn to page 19, line 4 2? 5 6 Α. Yes. Q.303 - This is where you have the discussion about the 158 7 8 basis points between Disco's proposed capital structure 9 and what you believe it ought to be, is that correct? 10 Α. Yes. Q.304 - And you say there at line 2 that such a basis point 11 margin over Disco's actual opportunity cost of funds would 12 13 appear to be excessive. Now does that mean that it could 14 be lower than 158 basis points and still be reasonable? 15 In terms of excessive, I'm referring to the claim that the Α. 16 company has made that that is representative of its 17 capital costs. Not capital costs plus margins, just 18 capital costs. And I have maintained that that's not 19 representative of its capital costs. 20 One might say that there is a margin for error say, and 21 that as you go through time an average of embedded debt 22 costs might be 6.29 or 6.39 or something in that range, 23 but -- and I would never say that something that is a handful of basis points appears to be excessive. 24 That

could be accounted for by measurement error or such.

1 - 5456 - Dr. Makholm - Cross by Mr. Morrison -2 But this is enough to be considered excessive in my book. 3 Q.305 - Well that's what I'm trying to get at, Dr. Makholm, because you seem to indicate in your report that 158 basis 4 point spread is excessive. Is 140 basis point spread 5 6 excessive? 7 Α. Yes. Q.306 - 110? 8 9 Α. Yes. 10 Q.307 - What is the range of reasonableness? Well no. The range of reasonableness here is not so much 11 Α. because the company and I are calculating our numbers in 12 13 the same fashion and say using different data sets in 14 coming to slightly different conclusions. We are 15 calculating our numbers completely different ways. I am 16 looking at the debt cost of the company and they are 17 looking at the cost of equity for investor owned firms. 18 In that context because they are arriving at their number 19 from a completely different perspective, I have to say that the 158 basis points as it would translate into 20 consumer's tariffs is excessive. That's a lot of money. 21 Q.308 - I understand that there is a fundamental difference as 22 23 to what you and Ms. McShane believe the way the return

should be calculated. I understand that. But your

1	- 5457 - Dr. Makholm - Cross by Mr. Morrison -
2	statement is that 158 basis points you were focusing on the
3	spread and you said that was excessive. And what I'm
4	trying to find out from you, Dr. Makholm, is what spread
5	would not be excessive
6	A. I don't have
7	Q.309 leaving the methodology aside?
8	A. I don't have a cut off for that.
9	Q.310 - Okay. And at page 23, Dr. Makholm, of your report
10	beginning at line 1, you say a utility that is financed on
11	a stand alone basis is expected to have an interest
12	coverage ratio of 1.0 times or more. So is it your view
13	that the interest coverage ratio can be greater than one
14	times?
15	A. Yes. It can be greater than one times, not vaguely so,
16	not for the reasons that the company has elucidated, but
17	for reasons of clear credible commitments to take money
18	and hold it for the benefit of ratepayers in an account
19	that could be accessed by ratepayers, like a capital
20	improvement fund. That would be a clear institutional
21	arrangement that would get from ratepayers money to be
22	used for ratepayers benefits, either as cash to pay
23	interest or as a down payment on new capital expenses.
24	Q.311 - I'm just trying to find out, Dr. Makholm, is there -

1 - 5458 - Dr. Makholm - Cross by Mr. Morrison -2 is that the only situation that you believe that an interest 3 coverage ratio of greater than one times is appropriate if there is an institutional arrangement or there is some 4 fund for the benefit of the ratepayer? 5 For a publicly owned entity where the danger always exists 6 Α. that the state will use it as a tax raising device without 7 saying so, I would say the answer is yes. 8 9 Q.312 - Okay. So I take it, Dr. Makholm, that -- I mean, you 10 have obviously read the evidence Ms. McShane, correct? 11 Α. Yes. Q.313 - And she has indicated that an interest coverage ratio 12 13 of 1.6 two times in this case is not unreasonable, and I 14 assume from that that you disagree with her on that, is 15 that correct? I disagree for two reasons. One, there is no -- the 1.62 16 Α. 17 comes from a premise that uses evidence from investor 18 owners which I consider as you know irrelevant to this 19 case. But second, there is no saying what the company is 20 going to do with the money. 21 The money can find itself two weeks in the general 22 treasury and that won't go for the benefit of ratepayers. 23 And in that case you will not have put up any barrier to using this entity as a subtle tax raising device for the 24 25 Province.

1 - 5459 - Dr. Makholm - Cross by Mr. Morrison -2 The clear institutional arrangements that I am discussing 3 in my testimony work to prevent that is to hold the money, mean -- we don't have coverage. Coverage only makes sense 4 to allow creditors to be sanguined that their money would 5 be repaid. And if you build in to a utility like this one 6 7 an interest coverage that is some multiple of one, but you don't earmark that money for creditors --debtors, or for 8 9 the benefit of ratepayers in general, then you won't have 10 provided any assuredness to debtors -- lenders. Excuse me. Let me just say lenders and I will get out of this 11 trap. You won't find any -- you won't provide any benefit 12 to lenders that the money that you are raising in this 13 coverage ratio scheme is it all there for them. 14 15 Q.314 - Are you aware, Dr. Makholm, that under the Electricity Act that any payments that are made from Disco to EFC can 16 17 only be used for purposes of retiring the debt? 18 Α. I don't know. CHAIRMAN: Mr. Morrison, is that a good spot to take a 10 19 20 minute recess? 21 MR. MORRISON: I believe I am finished, Mr. Chairman, but I will take 15 minutes just to go through my notes. 22 Thank 23 you. Okay. 24 CHAIRMAN: 10. 25

- 5460 Dr. Makholm Cross by Mr. Morrison (Recess)
- 3 CHAIRMAN: Did your ten minute review produce any further 4 questions, Mr. Morrison?
- 5 MR. MORRISON: No, Mr. Chairman, I am finished and thank
- 6 you, Dr. Makholm.
- 7 CHAIRMAN: Thank you.
- 8 WITNESS: Thank you, Mr. Morrison.
- 9 CHAIRMAN: And Mr. MacNutt, does the Board have any
- 10 questions, staff?
- 11 MR. MACNUTT: Board staff have no questions for this
- 12 witness, Mr. Chairman.
- 13 CHAIRMAN: Okay. The Panel may have some.
- 14 <u>BY THE BOARD</u>:
- 15 DR. SOLLOWS: Dr. Makholm, just one, maybe two questions.

16 On your exhibit, page 6, it is PI-15, your report, you --

17 I think Mr. Morrison referred you to this as well. You

18 indicate that Transco, the Transmission utility has an

19 actual capital structure of 35 percent equity, 65 percent 20 debt.

And in the next paragraph down, you link that kind of capitalization to an ability to raise investment grade debt. Do you know if Transco has demonstrated that ability and gone out and raised investment grade debt? A. I don't know.

1 - 5461 - Dr. Makholm - By The Board -DR. SOLLOWS: Don't know. If it hasn't and I don't know 2 either -- but if it hasn't, how long do you feel a Board 3 like this should forebear from restructuring its capital 4 structure to reflect the reality of the situation rather 5 than the -- rather than what might have been assumed would 6 happen? 7 I am in favor in all instances of a Commission like this 8 Α. 9 having firm control over both the sources and disposition 10 of capital for the utilities they regulate. I wouldn't be patient at all. 11 12 DR. SOLLOWS: Thank you. I guess one more question then. 13 You refer to any requirement for durable, credible and 14 clear institutional arrangements to support any --15 basically any interest coverage ratio above one -- if I am

16 characterizing it correctly?

17 A. Yes.

DR. SOLLOWS: What qualifies as durable, credible and clear?
A. I think the -- a sufficient test would be whether or not
the money raised from ratepayers to support a coverage
ratio of greater than one is well tended and kept in a
specific account that would go to the benefit of current
and future ratepayers, not to the benefit of some entity
or the public outside of the regulatory entity --

25 regulated entity.

1 - 5462 - Dr. Makholm - By The Board -2 DR. SOLLOWS: Thank you. That's all. 3 CHAIRMAN: Doctor, I have but one question and it may be outside of your field of expertise. And by all means if 4 it is, why don't answer it. But you certainly are 5 familiar with the utility industries in North America from 6 you c.v. and in particular electricity utilities. 7 Is that fair? 8 9 Α. Yes. 10 CHAIRMAN: Are you aware -- and I have asked this question of previous witnesses -- are you aware of any other 11 12 jurisdiction, such as this jurisdiction, where the stated 13 public policy is to work towards a competitive marketplace 14 in the generation of electricity where the form of PPAs, 15 power purchase agreements, such as are in place in this province, have been used to move towards that competitive 16 17 marketplace? I am not aware of any that have operated like we have seen 18 Α. 19 it operate in the recent past year. CHAIRMAN: Thank you. And now, Mr. Hyslop? 20 21 MR. HYSLOP: Thank you, Mr. Chair. I have just one question on redirect. And it flows out of some of Mr. MacDougall's 22 questioning this morning relating to the debt that has 23

24 been taken on by Electric Finance Corporation.

25 <u>REDIRECT EXAMINATION BY MR. HYSLOP</u>:

1 - 5463 - Dr. Makholm - Redirect by Mr. Hyslop -Q.315 - As the Public Intervenor, repaying of debt is 2 3 important and although I have raised a lot of questions about how the Applicant has gone about it, my question, 4 Dr. Makholm, is what recommendations can you make to this 5 Board about the fact that NB Power has accumulated \$3.5 6 billion plus of debt and what would this Board look for as 7 a reasonable way and a reasonable process to have that 8 9 dealt with and reduced if that was the direction of both 10 the Board and/or the owner of the company? There is a simple tested measure to do so. And that is 11 Α. 12 for you as a Board to specify the amortization period for 13 that debt so that it becomes an expense in the permissible revenues of the company you regulate. As an expense it 14 15 gets paid for in rates and cleared as a liability in due That is a distinct policy from the one that is 16 course. 17 being proposed by the company, which is to raise money in 18 a vague respect that may be used to pay off the debt or 19 may not be. That commitment is not there. The commitment is there if you all specify the way in which that debt 20 21 will be amortized to enter the permissible revenue stream as an expense to be paid for in regulated rates. 22 23 MR. HYSLOP: Thank you, Dr. Makholm, that is all the redirect that I have. 24

1 - 5464 -2 CHAIRMAN: Good. Thank you for your testimony, Doctor. You are excused. Mr. MacNutt, who is the next witness? 3 MR. MACNUTT: It is my understanding, Mr. Chairman, that the 4 Disco panel will now take the stand. That is Mr. Marois 5 and Mr. Larlee. 6 CHAIRMAN: And we were still with Mr. Gorman, were we not? 7 8 MR. MACNUTT: Yes, that is my understanding, Mr. Chairman. 9 And it is my understanding as well that he is raring to 10 go. CHAIRMAN: Are you raring to go, Mr. Gorman? 11 12 MR. GORMAN: That is an interesting way of putting it. 13 CHAIRMAN: Would you like to move up and would the panel like to? 14 15 MR. MORRISON: Call Mr. Larlee and Mr. Marois back to the stand and remind them that they are still under oath. 16 17 CHAIRMAN: You don't want to swear them again, there is you know what in between. 18 MR. MORRISON: There is enough swearing in this proceeding, 19 I believe. 20 21 ROCK MAROIS, NEIL LARLEE: 22 CHAIRMAN: While Mr. Gorman is getting settled there, 23 Commissioner Nelson wanted to follow up on something. 24 MR. NELSON: Mr. Marois, back awhile ago you did the -- and

25 it's exhibit PUB-14. And what it is, is you brought up --

1 - 5465 -2 and it was actuals to December 31st 2005. And it was exhibit 3 PUB-14. Any chance that that can be brought up further to 4 the end of February? That's the actual P&L's for the year to date? 5 MR. MAROIS: I can undertake to --6 Undertake and if I could have it -- you 7 MR. NELSON: Yes. know, if we could have it for this week? 8 9 MR. MAROIS: For this week. 10 MR. NELSON: And if you can do it based on the exhibit --MR. MAROIS: The same format? 11 MR. NELSON: -- the same format as PUB-14? 12 MR. MAROIS: Sure. 13 MR. NELSON: And that brings us -- I mean what is it five 14 15 days after the month end you usually have your results? MR. MAROIS: Typically, yes. 16 17 MR. NELSON: So that therefore you could bring it up to the 18 end of February then without any problem? MR. MAROIS: Is there a forecast in there or is that the 19 20 actuals --21 MR. NELSON: It's the actuals and then budget -- and also 22 displayed against the budgets compared to the budget. MR. MAROIS: Yes. Because doing the actual part we can --23 we don't necessarily have a reforecast for the -- I quess 24 25 in this case would be the final amount of the year. So it

1 - 5466 - Cross by Mr. Gorman -2 would be the original budget. MR. NELSON: Yes, that's fine. 3 4 CHAIRMAN: Go ahead, Mr. Gorman. MR. GORMAN: Thank you, Mr. Chairman. 5 6 CROSS EXAMINATION BY MR. GORMAN: Q.335 - Good afternoon, Mr. Marois and Mr. Larlee. I think I 7 have been up here now three times now waiting to go on 8 9 this. So finally we get started. 10 Of course, as often happens, different questions come to mind based on what one hears and sees in the meantime. 11 12 And today an exhibit was entered EGNB 10. Do the witnesses have that exhibit? 13 14 MR. MAROIS: No, I do not. Q.336 - Perhaps your counsel could get you a copy. EGNB 10, 15 16 I assume you have had an opportunity to look at that, is a 17 comparison -- or a summary of the revenue to expense 18 recovery ratios or revenue to cost ratios for Nova Scotia 19 Power? 20 MR. MAROIS: Yes. Q.337 - And I note that in Nova Scotia, the lowest revenue to 21 cost ratio is at 95, do you see that? 22 MR. MAROIS: I believe you are referencing exhibit 1 at the 23 24 proposed rate? 25 Q.338 - That's correct.

1	- 5467 - Cross by Mr. Gorman -
2	MR. MAROIS: That appears to be the case, yes.
3	Q.339 - And who has the lowest revenue to cost ratio in Nova
4	Scotia?
5	MR. MAROIS: Based on this table, it's the municipal
6	customers.
7	Q.340 - And do you have any I guess explanation do you know
8	the reason for that?
9	MR. MAROIS: Not at all.
10	Q.341 - And I note that and would you agree with me that in
11	Nova Scotia, the industrials are all somewhere handy to 1?
12	I see large industrial at 96.69. The other two at just
13	around 1?
14	MR. MAROIS: Well based on what's provided in that table,
15	the lowest appears to be 96 percent. However, if you go
16	back to the first page, it does indicate that below the
17	line rate for the extra large industrial rate is not
18	there.
19	Q.342 - And in New Brunswick, the large industrials, would it
20	not be fair to say that the intention or where they were
21	at at one time was somewhere around 1, is that sort of
22	historically correct?
23	MR. MAROIS: In the recent history, they were around 1, yes.
24	Q.343 - And in fact this morning a copy of the New Brunswick

25 Energy policy was distributed, which apparently had been

- 5468 - Cross by Mr. Gorman -

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marked earlier as PUB-12. And I note on page 26 of that 2 3 policy -- and I don't need you to turn it up unless you disagree with what I read here. It says large industrial 4 customers pay roughly 100 percent of the costs incurred to 5 serve them, so they are neither subsidized by, nor do they 6 7 subsidize other customer groups. And I understand that this report came out somewhere around December of 2002. 8 9 So would that have been truly reflective of the situation 10 in 2002?

MR. MAROIS: I am not certain for 2002, but around that time 11 they would have been at roughly 1. I think that one thing 12 13 that's interesting to mention here is really what has driven our rates in the recent past is the increasing fuel 14 15 costs. And the large industry get hit proportionately hardest with fuel costs from the cost point of view --16 17 from a classification point of view, because fuel is 18 allocated on energy and large industry uses

19 proportionately more energy.

20 So when your costs are being driven by fuel, they end up 21 with larger costs. So that -- just that in itself could 22 have made the revenue to cost ratio swing significantly 23 over the past couple of years.

Q.344 - Well what I find interesting and I guess what I am looking for or a comment from you on, is with respect to

1 - 5469 - Cross by Mr. Gorman the fact that if in 2002, large industrial customers were 2 3 precisely where they should have been, that is at unity, not just within the approved 95 to 1.05 range, but 4 actually pretty much at unity. How is it that they are 5 now below -- in fact they are 8 points below on a revenue 6 to cost ratio basis on the proposed rates. They would 7 come in at 92 percent. How would they have fallen so far 8 9 out of the range, when in fact the CARD decision back in 10 1992 was, of course, to move gradually move everybody within. Weren't they already in and have they now not 11 12 moved out? 13 MR. MAROIS: It is really mainly a function of allocation of costs. Like I mentioned I quess before you asked your 14 15 question is the most significant increase in costs from 16 the early 2000's is fuel. 17 Fuel has gone up significantly and fuel gets 18 proportionately allocated more to customers that use 19 proportionately more energy which by definition is the industrial class. 20 21 So really what happened is they have ended up with so much 22 more costs being allocated to them, which just brought 23 down the revenue to cost ratio significantly. Q.345 - Okay. But I think that the response to earlier 24

25 questions with respect to revenue to cost ratio issues and

- 5470 - Cross by Mr. Gorman certain customer classes not falling within the approved 95 to
105 category was -- and oftentimes we hear about the
theory of gradualism.
And I guess really the point I am making is it strikes me,
and correct me if I am wrong, that large industrial,
according to the White Paper, were actually at one. They

8 were exactly in the centre of that bandwidth and now they9 have fallen a long ways out.

10 And I'm just wondering, you know, other than rising fuel 11 costs, which of course impact on all customer classes, you 12 would agree with that?

MR. MAROIS: Not at all. Like I just said, fuel costs impact significantly more customers with proportionately more energy so fuel costs are allocated on an energy basis.

So industry has a very high load factor customers, so proportionately they get allocated less demand charted costs -- less fixed costs but they get allocated a lot more energy costs.

So they end up with the brunt of the allocated, the increase in fuel costs which is pure math and that is what has driven the revenue cost ratio for that revenue class. Q.346 - So would you agree then that setting a class at the extremities of this 95 to 105 approved range is dangerous

1 - 5471 - Cross by Mr. Gorman -2 because something such as increased fuel costs could result in 3 a particular customer class falling well off the approved 4 range very easily? MR. MAROIS: It depends on the rate class. For example, the 5 wholesale rate class that has a load factor of close to 6 7 the system average will follow system average. So that rate class is not as subject to swings as a class 8 9 for example like the industrial class which has a load 10 factor which is different than the system average. Q.347 - So under those circumstances then wouldn't it make 11 more sense then to attempt to have industrials for example 12 13 pay 100 percent rather than setting them below? Because 14 if you had another large change in fuel costs for example, could not their revenue to cost ratio fall further? 15 MR. MAROIS: If the only objective we had was to recover --16 17 to have a revenue to cost ratios close to 1, I couldn't 18 disagree with you. Unfortunately it's not the only 19 objective we have. Q.348 - No. But your objective -- and I think now that we are 20 21 into this portion of the hearing, the objective is to 22 recover your costs. Would you agree with that? 23 MR. MAROIS: Definitely that is the -- yes. Q.349 - And would you agree with the proposition that each 24 25 class should pay its own costs?

1 - 5472 - Cross by Mr. Gorman -2 MR. MAROIS: Within the limits recognized by the Board 3 itself in its December decision that some classes it may 4 take time to move to the band for a principle of gradualism. 5 The major principle we applied in coming up with our rate 6 proposal was the principle of balancing. We wanted to 7 balance the impact on customers with the desire to move --8 9 to have revenue -- to recover cost. And balancing by 10 definition is -- is it can't bring you exactly where you want to go in one shot. 11 Q.350 - No. Fair enough. But -- and I just want to follow up 12 13 on this a little bit. Because I'm not sure of your answer 14 to that question. Is your objective not to have each 15 customer class, I mean, in a perfect world, pay for the costs incurred by them? Is that not what your objectives 16 17 are? Are they something other than that? 18 MR. MAROIS: The ultimate objective, yes. But when you 19 separate you have to take other objectives into account. Q.351 - What would those objectives be? 20 21 MR. MAROIS: If I can bring you to my evidence. In exhibit A-76 --22 23 Q.352 - Yes. 24 MR. MAROIS: -- my evidence is -- is under my name, the tab

25 Direct Evidence of Rock Marois. And on -- it's on page 2,

2 Question 5.

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3 Q.353 - Yes.
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MR. MAROIS: We indicate there the three key objectives that
really influence our rate proposal. The first one, as you
mentioned, is to recover our costs.

7 Q.354 - Yes.

8 MR. MAROIS: The second one is to reduce cross-

9 subsidization. So in other words bring rates closer to

10 cost. But the current one is to maintain the principle of

11 gradualism so to take into account the impact on

12 customers. And our objective was to try to balance all

13 this.

14 Q.355 - Well -- and I guess this is a line of questions I had 15 for later on. But now that we are there, perhaps I will 16 explore it at this stage.

17 You have three principles that you have enunciated, is

18 that correct?

19 MR. MAROIS: Yes.

Q.356 - And the first bullet allowing Disco to recover costs that it has to incur to meet its supply obligations to electricity consumers in New Brunswick, is that effectively what I have talked about, trying to recover

24 the costs from each of the classes?

25 MR. MAROIS: Yes.

1 - 5474 - Cross by Mr. Gorman -2 Q.357 - And secondly is to reduce cross-subsidization between 3 rate classes. And really that is what I'm talking about when I raise the issue of industrials being at 9.92. 4 Would you agree that that has not been achieved, your 5 second objective? 6 MR. MAROIS: It has been partly achieved. Our rate proposal 7 brings all rate classes closer to the target range. 8 9 Q.358 - Well, okay. You have not eliminated cross-10 subsidization then. What you are hanging your hat on here is that you say you have reduced it? 11 12 MR. MAROIS: Yes. My feeling is that our position is we 13 would not have been able to eliminate cross-subsidization 14 while still achieving the third objective which is to 15 maintain gradualism. Q.359 - Okay. Now I go back to the very first question that I 16 17 had when we started this line of cross examination in 18 terms of gradualism. And what I put to you as a proposition was that this isn't 19 an issue of being well below unity and moving in towards 20 21 this approved range. In fact according to the White Paper you were already in the range. So it wouldn't be a matter 22 23 of getting there gradually. From what I understand from the White Paper, in 2002 you 24

were there. And you have now fallen outside of the

1 - 5475 - Cross by Mr. Gorman -2 range. Am I misinterpreting this --3 MR. MAROIS: Yes. Q.360 - -- Mr. Marois? 4 MR. MAROIS: Well, it's because things are not static. 5 Like I said, over the past couple of years we have had a 6 7 phenomenal increase in fuel cost. And try to remember, our fuel costs over the past two 8 9 years have increased by at least 170,000,000. And because 10 of the way you allocate cost, you allocate fuel on an 11 energy basis. 12 Proportionately we have ended up allocating a lot of that 13 increase to industrial. And the rate increase to the 14 industrial have not allowed to maintain the previous 15 revenue-cost ratio. So like I say, what we have had over the past couple of 16 17 years is really exceptional in terms of the increase in 18 one single cost component. 19 Q.361 - Well, then let me qo back to EGNB-10. Because the fuel costs that you are facing, that we are facing here in 20 21 New Brunswick, they would be facing fuel cost increases in Nova Scotia as well? 22 23 Α. Yes.

Q.362 - And would you agree with me that under the proposed
rates in exhibit 1 in Nova Scotia, that none of the rates

1 - 5476 - Cross by Mr. Gorman -2 fall below 95 percent on a revenue to expense recovery ratio? 3 MR. MAROIS: I cannot comment on revenue-cost ratios of 4 another jurisdiction. Q.363 - Well, can you agree that that is what exhibit 1 says? 5 MR. MAROIS: That's what it appears to say. 6 7 Q.364 - And you can agree that that has not been achieved in 8 your proposed rates? 9 MR. MAROIS: No. We have two rate classes that are outside 10 the range, the general service rate class and the large industrial rate class. Three out of five major rate 11 classes are within that target range. 12 Q.365 - Well, you took me to your evidence on page 2. So I'm 13 14 going to stay there, take you to page 3 of your evidence. 15 It starts off, Question 6, "What steps did Disco follow to 16 establish the proposed rates?" And then it says "The 17 following steps were followed to establish the proposed 18 rates." And it lists five items or five steps that were taken, do 19 20 you agree? 21 MR. MAROIS: Yes. Q.366 - And it mentions where the residential rate was set to 22 23 achieve a .95 revenue to cost ratio. Again that would be within the approved range? 24 25

1 - 5477 - Cross by Mr. Gorman -2 MR. MAROIS: Yes. 3 Q.367 - It mentions the general service rates were such that certain things had to occur there, and that you can only 4 bring those closer to the target range? 5 MR. MAROIS: Correct. 6 Q.368 - Again you talk about the small industrial rate. And 7 8 you say that was set at a revenue to cost ratio of 1.05? 9 MR. MAROIS: Yes. 10 Q.369 - A wholesale rate was set at a revenue to cost ratio of 1.05? 11 MR. MAROIS: Correct. 12 Q.370 - And then you say the residential rate increase was 13 14 applied to the large industrial rate. 15 You have set everything -- every other class at a 16 particular revenue to cost ratio. But that doesn't seem 17 to be the manner in which you dealt with the large industrial. 18 Why is that dealt with differently? 19 MR. MAROIS: Well, the way -- there is probably different 20 21 ways to set rates. But at the end of the day you cannot solve too many variables. 22 23 So really on reflecting on these five steps, really we were unable to summarize it really in two steps, in the 24

25 sense that as a result of the CARD decision of December or

1 - 5478 - Cross by Mr. Gorman -2 ruling, we were able to bring three of the five major rate 3 classes within the .95, 1.05 range. So we have got residential, small industry and wholesale are all within 4 the .95 to 1.05 range. 5 So really you are left with two rate classes that you need 6 7 to solve. One is general service. Both general service rates are above the 1.05 target range. And large 8 9 industrial which was below the .95 to 1.05 target range. 10 So what we decided to do, it was decided to solve one of those two, which was general service. And the way we 11 solved it we said we are going to apply an increase to 12 13 that rate class which is less than the average increase. So really it reduces cross-subsidization. And in order to 14 15 determine an amount we used an amount which was consistent with what we have indicated before in our initial filing 16 17 which had a range of increases. 18 So by doing that really we had solved three rate classes 19 by bringing them within the target range. Then we have

solved the general service rate class. So the residual increase got applied to industry. So that was one way of doing it.

The methodology in my mind is really not as important as the result. We shared with everyone how we did it. But really what's important is the result. And the result

1 - 5479 - Cross by Mr. Gorman -2 is that we have qot -- we believe that our rate proposal is 3 reasonable for a couple of reasons, for really three 4 reasons. One is all revenue to cost ratios move in the right 5 6 direction. Three out of the five major rate classes are 7 within the .95 to 1.05 target range. And none of the 8 increases in rates are above 1.05 percent more than the 9 average. So really what's important is the end result at 10 the end of the day. Q.371 - Mr. Marois, one of the comments you made was that all 11 of the rate classes you say move in the right direction. 12 13 What do you mean by that? 14 MR. MAROIS: I can bring you to page 4 of my evidence, table 2. 15 Q.372 - Yes. 16 17 MR. MAROIS: And maybe I should explain maybe the three 18 columns that you find there. Column 1, which are the 19 revenue to cost ratios at the July 7th 2005 rates, really at the existing rates. With that column, I mean you 20 21 cannot use this column in comparison, because the problem 22 with this column is it includes really two things. Ιt 23 refers to the fact that you under-recovering your costs, because if you look at line 11 of column 1, the overall 24 25 revenue cost ratio is only 90 -- .90. So really that

1 - 5480 - Cross by Mr. Gorman -2 column reflects the fact that you are only recovering 90 3 percent of your costs. And it also reflects cross subsidization. So that column reflects two things. 4 So the first thing you need to do is eliminate from that 5 column the under recovery. So that brings you to column 6 So the only thing column 2 does is it takes column 1 7 2. and eliminates the 10 percent shortfall. So if you look 8 9 at line 11, column 2, you are now at a revenue to cost 10 ratio of 1. And overall revenue to cost ratio of 1. But we have not -- this column does not correct any cross 11 subsidization. The only thing it does it adjusts all 12 13 rates by an average increase of 11.6 percent.

You should know that this column changes slightly as a result of the correction we made just two weeks ago now of \$2 million, but not significantly.

17 So now what we can do is we can compare columns 2 and 3 to 18 determine the direction that the revenue to cost ratios 19 are taking.

20 So if you go line by line, line 1, Residential, with an 21 average increase the revenue to cost ratio is .94. So 22 it's outside of the target range. With our rate proposal 23 we bring it within the target range of 95 to 1.05. So 24 that one is going in the right direction.

25 Q.373 - Could I ask you a question at that point?

1 - 5481 - Cross by Mr. Gorman -2 MR. MAROIS: Yes. Q.374 - And that is the significance of column 2, because 3 column 2 as I understand it represents a revenue to cost 4 ratio of -- if you will a non-existent rate. It never 5 existed. It's never intended to exist. Would you agree 6 7 that it's there for illustration purposes only? MR. MAROIS: It's there as indicated -- I quess starting on 8 9 line 15 of page 4 of my evidence. It's there to allow an 10 apples to apples comparison to determine the direction of the revenue to cost ratios. Without that column, you 11 12 could not have an apples to apples comparison, because if 13 you try to compare column 3 with column 1, you would 14 compare one column that's recovering 100 percent of cost 15 with a column that is recovering only 90 percent of the cost. So you are comparing apples with oranges. Because 16 17 like I say column 1 includes two things. Column 1 reflects cross subsidization, but also reflects under 18 19 recovery of the rates. 20 So by doing the adjustment that we do in column 2, you are able to compare apples to apples. Column 2 and column 3 21

are comparable.

Q.375 - Before we leave that topic though would you agree with me that column 2 is a fictional column in the sense that it does not represent an actual rate that was ever charged

1	- 5482 - Cross by Mr. Gorman -
2	or was ever intended or proposed?
3	MR. MAROIS: It's an exercise to be able to compare apples
4	with apples.
5	Q.376 - Well, I don't think you have answered my question.
6	Would you agree that it's a non-existent revenue to cost
7	ratio, a fictional one, if you will?
8	MR. MAROIS: Well, we are not proposing an average 11
9	percent rate increase. So you are correct in a sense that
10	those revenue cost ratios, we are not proposing that.
11	They are there for analysis purposes.
12	Q.377 - So you would agree that that is fictional?
13	MR. MAROIS: Well I am not comfortable with the word,
14	fictional. They are part of an analysis to compare two
15	things together on a comparable basis.
16	Q.378 - Let's just see if we can find some common ground here.
17	You would agree that the revenue to cost ratio
18	illustrated in column 2 was never intended to illustrate a
19	revenue to cost ratio that was proposed by Disco to be
20	recovered?
21	MR. MAROIS: That I can agree with.
22	Q.379 - And it doesn't represent a revenue to cost ratio that
23	has ever been recovered?
24	MR. MAROIS: I agree with that, too.
25	Q.380 - So you have set this forth for, as you say, for

1 analysis purposes. Now, I will let you continue on from - 5483 - Cross by Mr. Gorman -2 3 there, but I just didn't see the -- and quite frankly still 4 don't see the benefit of column 2. But, go ahead. You are saying that in order to show how they are all moving 5 in the right direction, you say you have come up with 6 column 2. So I think that's where your evidence was when 7 I interrupted. 8 9 MR. MAROIS: Well if you don't get the point, maybe I 10 haven't explained it well. I will try again. Column 1 depicts the revenue to cost ratios using existing 11 And it's clear from that column, line 11, that 12 rates. 13 those rates are insufficient to recover the costs, because the overall revenue to cost ratio is only .90. So when 14 15 you look at those revenue to cost ratios of that column, they reflect two things. They reflect under recovery of 16 17 the costs and they also reflect cross-subsidization. And 18 if you want to be able to determine the movement we are 19 making in cross-subsidization alone, you have to isolate 20 something. And what you have to isolate is the under 21 recovery. 22 So it's really a two-step approach. The first step is you have to determine what would be the revenue to cost ratio 23

if you were to recover your revenue requirement, butwithout modifying at all the cross-subsidization. The

1 status quo. So that's your column 2. The only thing you - 5484 - Cross by Mr. Gorman -2 3 are doing is you are saying now I am able to recover my costs. 4 So what that does is it makes column 2 totally comparable with column 3, because columns 2 and columns 3 recover the 5 exact same amount of cost overall. It's just you are 6 7 recovering it from different customer classes. And by comparing the revenue cost ratios of those two columns, 8 9 you are able to see the movement. Are we moving away from 10 the 95 to 105 band or are we moving towards the 95 to 105 band or are we staying within the band? And like I said, 11 all rates are moving closer to the band are staying within 12 13 the band. So what we did -- we just did row 1, which 14 showed that without any changes to the rates to try to 15 adjust for cross-subsidization, we would have had a revenue to cost ratio of 94 for residential in order to 16 17 recover our costs, but with the rates we are proposing, we are going to 95. So now we are within the target range. 18 19 Then if you jump to line 4, without any rate design 20 changes, we would have been at 1.28. With our rate 21 proposal we are at 1.23. So again, we are getting closer 22 to the 105 -- 95 to 105 range. The same thing for general 23 service II. With an average increase, we would have been at 1.19. Our rate proposal brings us to 1.17. Similarly, 24 25 streetlights and on line 6, if we would have applied an

1 - 5485 - Cross by Mr. Gorman -2 average increase, we would have had a revenue to cost ratio of 3 1.81. Our rate proposal on column 3 provides us with a revenue to cost ratio of 1.63. Water heaters, if we would 4 have an average increase that would have allowed us to 5 recover our cost, we would have had a revenue to cost 6 7 ratio of 1.53. Our rate proposal brings us to 1.42. Again a movement in the right direction. 8 9 Small industrial on line 8, without any changes to the 10 rates, it's simply applying an 11.6 percent increase. We would have had a revenue to cost ratio of 1.06, slightly 11 12 above the target range. Our proposal brings that rate 13 increase within the target range. The same thing with large industrial, without any specific 14 15 rate proposal changes, we would have had a revenue to cost 16 ratios of 91. Now we are at .92. Again moving in the 17 right direction. 18 And finally on line 10, the wholesale rate, with an 19 average increase would have been at 1.06, revenue to cost 20 ratio. What we are proposing is 1.05. So all the revenue to cost ratios move in the right direction. 21 22 Q.381 - Okay. If I can sort out these columns, I see that we are getting handy to 3:00 o'clock and I would like to wind 23

24 up this line of questioning, if I could. Column 1, can I

25 call that actual. Is that where we would be at now

1 - 5486 - Cross by Mr. Gorman -2 without any rate increase approved? 3 MR. MAROIS: Well, it's the current rates applied on anticipated costs for 06/07. So everything else being 4 equal, that's where we would end up. 5 Q.382 - So actual or current -- either word -- I am satisfied 6 with either word, but you are comfortable --7 MR. MAROIS: It's forecasted cost with actual revenues. 8 9 Q.383 - Now, I notice in column 2, there was a note. And it 10 talked about these revenue to cost ratios are estimated by 11 assuming an 11.6 percent rate. So can we just head that one maybe assumed? Would you agree that that would be 12 descriptive of that column? 13 MR. MAROIS: Yes. 14 Q.384 - And column 3 is proposed, that is what you are seeking 15 16 from the Board? 17 MR. MAROIS: Yes. 18 Q.385 - And, of course, you want to compare column 2 to column 3. But if I compare column 1, the actual to column 3, the 19 20 proposed, which strikes me to be the more meaningful 21 comparison, and I am going to take you down to line 10, which is, wholesale, and under the actual rates, column 1, 22 wholesale is at what revenue to cost ratio? 23 95. Which is not surprising because we are 24 MR. MAROIS: 25 only recovering 90 percent of our costs. So I mean that's

1 - 5487 - Cross by Mr. Gorman -2 what I say it's comparing apples with oranges, because under 3 line 1, we are only recovering 90 percent of our costs and 4 in line 2, we are recovering 100 percent of our costs. So it's official that your revenue to cost ratio will go up 5 just because we need an 11.6 percent increase. 6 Q.386 - Sure. So under the actual though, wholesale, just 7 stay with me on this, if you would, is at .95? 8 9 MR. MAROIS: Using today's rates and recovering an overall 10 90 percent of our costs, yes. Q.387 - So the object, as I understand it, is to move towards 11 12 the approved range or towards unity, would you agree with 13 that? 14 MR. MAROIS: I am more comfortable with saying that the objective is to move within the range. 15 Q.388 - Well, I don't know if I accept the word, within. 16 Ιt 17 seems to me that -- and we can go back to the --18 CHAIRMAN: Mr. Gorman, that is argument. And we will hear 19 plenty about that I am sure next week. So we will adjourn 20 and reconvene tomorrow morning at quarter after 9:00. 21 (Adjourned) 22 Certified to be a true transcript 23 of the proceedings of this hearing as 24 recorded by me, to the best of my 25 ability. 26 27 Reporter